Cellulose crystallinity index: measurement techniques and their impact on interpreting cellulase performance

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#	Paper	IF	Citations
2066	Measuring the crystallinity index of cellulose by solid state 13C nuclear magnetic resonance. **2009**, 16, 641-647		174
2065	Practical screening of purified cellobiohydrolases and endoglucanases with □cellulose and specification of hydrodynamics. *Biotechnology for Biofuels*, **2010**, 3, 18	7.8	44
2064	Dialkoxy functionalized quaternary ammonium ionic liquids as potential electrolytes and cellulose solvents. **2011**, 35, 1596		48
2063	Cellobiohydrolase hydrolyzes crystalline cellulose on hydrophobic faces. **2011**, 286, 11195-201		105
2062	Restructuring the crystalline cellulose hydrogen bond network enhances its depolymerization rate. **2011**, 133, 11163-74		272
2061	Chemocatalytic conversion of cellulose: opportunities, advances and pitfalls. **2011**, 1, 714		204
2060	Adsorption of arabinoxylan on cellulosic surfaces: influence of degree of substitution and substitution pattern on adsorption characteristics. **2011**, 12, 2633-41		94
2059	Selective detection of crystalline cellulose in plant cell walls with sum-frequency-generation (SFG) vibration spectroscopy. **2011**, 12, 2434-9		88
2058	Structural changes in microcrystalline cellulose in subcritical water treatment. **2011**, 12, 2544-51		38
2057	Deconstruction of lignocellulosic biomass to fuels and chemicals. **2011**, 2, 121-45		684
2056	Development of cellulosic secondary walls in flax fibers requires beta-galactosidase. **2011**, 156, 1351-63		84
2055	Extracting wood lignin without dissolving or degrading cellulose: investigations on the use of food additive-derived ionic liquids. **2011**, 13, 3124		161
2054	Transition of cellulose crystalline structure and surface morphology of biomass as a function of ionic liquid pretreatment and its relation to enzymatic hydrolysis. **2011**, 12, 933-41		331
2053	Cellulose nanomaterials review: structure, properties and nanocomposites. **2011**, 40, 3941-94		4087
2052	Novel and facile synthesis of magnetic composites by a modified co-precipitation method. **2011**, 130, 624-634		33
2051	Chemical and morphological characterization of sugarcane bagasse submitted to a delignification process for enhanced enzymatic digestibility. *Biotechnology for Biofuels*, **2011**, 4, 54	7.8	304
2050	Structural changes of lignocelluloses by a nonionic surfactant, Tween 20, and their effects on cellulase adsorption and saccharification. **2011**, 102, 9605-12		62

2049	Dilute acid pretreatment and enzymatic saccharification of sugarcane tops for bioethanol production. **2011**, 102, 10915-21		151
2048	Congo Red adsorption by ball-milled sugarcane bagasse. **2011**, 178, 122-128		153
2047	Synthesis of sugars by hydrolysis of hemicelluloses--a review. **2011**, 111, 5638-66		294
2046	Effect of pre-acid-hydrolysis treatment on morphology and properties of cellulose nanowhiskers from coconut husk. **2011**, 18, 443-450		107
2045	Effects of hot water extraction and fungal decay on wood crystalline cellulose structure. **2011**, 18, 1179-1190		22
2044	Evolution of cellulose crystals during prehydrolysis and soda delignification of sugarcane lignocellulose. **2011**, 18, 1509-1519		47
2043	Role of supramolecular cellulose structures in enzymatic hydrolysis of plant cell walls. **2011**, 38, 975-83		60
2042	Comparison of Feedstock Pretreatment Performance and Its Effect on Soluble Sugar Availability. **2011**, 4, 193-200		15
2041	Bioconversion of Lignocellulose into Bioethanol: Process Intensification and Mechanism Research. **2011**, 4, 225-245		109
2040	How recombinant swollenin from Kluyveromyces lactis affects cellulosic substrates and accelerates their hydrolysis. *Biotechnology for Biofuels*, **2011**, 4, 33	7.8	82
2039	Improvement of cellulase activity in Trichoderma reesei by heterologous expression of a beta-glucosidase gene from Penicillium decumbens. **2011**, 49, 366-71		110
2038	Cellulolytic Enzymes Production via Solid-State Fermentation: Effect of Pretreatment Methods on Physicochemical Characteristics of Substrate. **2011**, 2011, 860134		39
2037	Nanostructure of cellulose microfibrils in spruce wood. **2011**, 108, E1195-203		496
2036	Cellulose Isolation Methodology for NMR Analysis of Cellulose Ultrastructure. **2011**, 4, 1985-2002		58
2035	Sensing the structural differences in cellulose from apple and bacterial cell wall materials by Raman and FT-IR spectroscopy. **2011**, 11, 5543-60		118
2034	Monitoring Wood Degradation during Weathering by Cellulose Crystallinity. **2012**, 5, 1910-1922		159
2033	Extraction and Characterization of Cellulose Nanowhiskers from Balsa Wood. **2012**, 319, 191-195		20
2032	Synergistic interactions in cellulose hydrolysis. **2012**, 3, 61-70		104

2031	Zinc oxide-linen fibrous composites: morphological, structural, chemical and humidity adsorptive attributes. **2012**, 82, 832-844	8
2030	Mercerization of Agave americana L. fibers. **2012**, 103, 565-574	12
2029	Comparative investigation of Fourier transform infrared (FT-IR) spectroscopy and X-ray diffraction (XRD) in the determination of cotton fiber crystallinity. **2012**, 66, 983-6	57
2028	Plant cell walls to ethanol. **2012**, 442, 241-52	149
2027	Biomass Characterization: Recent Progress in Understanding Biomass Recalcitrance. **2012**, 8, 191-208	82
2026	A review of lignocellulose bioconversion using enzymatic hydrolysis and synergistic cooperation between enzymes--factors affecting enzymes, conversion and synergy. **2012**, 30, 1458-80	656
2025	Effect of cellulose physical characteristics, especially the water sorption value, on the efficiency of its hydrolysis catalyzed by free or immobilized cellulase. **2012**, 157, 246-52	33
2024	Characterization of biomasses available in the region of North-East India for production of biofuels. **2012**, 45, 212-220	69
2023	Fabrication of mesoporous lignocellulose aerogels from wood via cyclic liquid nitrogen freezing□thawing in ionic liquid solution. **2012**, 22, 13548	95
2022	The impact of ionic liquid pretreatment on the chemistry and enzymatic digestibility of Pinus radiata compression wood. **2012**, 14, 778	75
2021	Free-lignin cellulose obtained from agar industry residues using a continuous and minimal solvent reaction/extraction methodology. **2012**, 2, 12286	4
2020	Cottonised flax fibres vs. cotton fibres: structural, textural and adsorption characteristics. **2012**, 2, 2032	22
2019	Preparation, morphology and structure of cellulose nanocrystals from bamboo fibers. **2012**, 19, 1527-1536	141
2018	H2SO4-Catalyzed Hydrothermal Pretreatment of Triploid Poplar to Enhance Enzymatic Hydrolysis. **2012**, 51, 11598-11604	17
2017	Study of the Formation of Poly(vinyl alcohol) Films. **2012**, 45, 1913-1923	41
2016	PEG-functionalized ionic liquids for cellulose dissolution and saccharification. **2012**, 14, 2922	99
2015	Cellulose is not just cellulose: a review of dislocations as reactive sites in the enzymatic hydrolysis of cellulose microfibrils. **2012**, 19, 1481-1493	42
2014	Pretreatment of sugarcane bagasse by acid-catalysed process in aqueous ionic liquid solutions. **2012**, 120, 149-56	96

2013	Quantification of crystalline cellulose in lignocellulosic biomass using sum frequency generation (SFG) vibration spectroscopy and comparison with other analytical methods. **2012**, 89, 802-9		59
2012	Microfibrillated cellulose - its barrier properties and applications in cellulosic materials: a review. **2012**, 90, 735-64		1153
2011	Enzymatic hydrolysis and characterization of lignocellulosic biomass exposed to electron beam irradiation. **2012**, 90, 1038-45		52
2010	The pattern of cell wall deterioration in lignocellulose fibers throughout enzymatic cellulose hydrolysis. **2012**, 28, 1389-99		7
2009	Two structurally discrete GH7-cellobiohydrolases compete for the same cellulosic substrate fiber. *Biotechnology for Biofuels*, **2012**, 5, 21	7.8	19
2008	Hemicelluloses negatively affect lignocellulose crystallinity for high biomass digestibility under NaOH and H2SO4 pretreatments in Miscanthus. *Biotechnology for Biofuels*, **2012**, 5, 58	7.8	197
2007	Production of levulinic acid from cellulose by hydrothermal decomposition combined with aqueous phase dehydration with a solid acid catalyst. **2012**, 5, 7559		294
2006	Activation of cellulose by 1,4-dioxane for dissolution in N,N-dimethylacetamide/LiCl. **2012**, 19, 1893-1906		17
2005	Biochemical methane potential and anaerobic biodegradability of non-herbaceous and herbaceous phytomass in biogas production. **2012**, 125, 226-32		98
2004	Predictive models of biohydrogen and biomethane production based on the compositional and structural features of lignocellulosic materials. **2012**, 46, 12217-25		155
2003	Challenges for assessing the performance of biomass degrading biocatalysts. **2012**, 908, 1-8		2
2002	Distinct Effect of Formic and Sulfuric Acids on Cellulose Hydrolysis at High Temperature. **2012**, 51, 3295-3300		31
2001	Effect of alkali pretreatment on the structural properties and enzymatic hydrolysis of corn cob. **2012**, 168, 1806-19		39
2000	Pretreatment and Lignocellulosic Chemistry. **2012**, 5, 1043-1066		313
1999	Grafting of model primary amine compounds to cellulose nanowhiskers through periodate oxidation. **2012**, 19, 2069-2079		53
1998	In situ surface modification of natural fiber by conducting polyaniline. **2012**, 19, 365-376		20
1997	Bio-based nanocomposites obtained through covalent linkage between chitosan and cellulose nanocrystals. **2012**, 90, 210-7		110
1996	Biocatalytic conversion of lignocellulose to platform chemicals. **2012**, 7, 1122-36		52

1995	Evaluation of the factors affecting avicel reactivity using multi-stage enzymatic hydrolysis. **2012**, 109, 1131-9	32
1994	Novel renewable ionic liquids as highly effective solvents for pretreatment of rice straw biomass by selective removal of lignin. **2012**, 109, 2484-93	195
1993	Phase change of nickel phosphide catalysts in the conversion of cellulose into sorbitol. **2012**, 5, 920-6	59
1992	Insights on how the activity of an endoglucanase is affected by physical properties of insoluble celluloses. **2012**, 116, 6128-36	21
1991	The effect of drying method on the properties and nanoscale structure of cellulose whiskers. **2012**, 19, 901-912	32
1990	Compound Finishing of Bombyx mori Silk: A Study of Cold Oxygen Plasma/Titania Sols Treatments and Their Influences on Fiber Structure and Performance. **2012**, 32, 629-642	15
1989	Impact of hemicelluloses and pectin on sphere-like bacterial cellulose assembly. **2012**, 88, 547-557	71
1988	Synthesis and characterization of methylcellulose/PVA based porous composite. **2012**, 88, 1364-1372	76
1987	Examining correlations between composition, structure and properties in zircon-containing raw glazes. **2012**, 38, 1827-1833	20
1986	The mechanism of poly(ethylene glycol) 4000 effect on enzymatic hydrolysis of lignocellulose. **2012**, 89, 203-10	60
1985	Effects of grinding processes on enzymatic degradation of wheat straw. **2012**, 103, 192-200	181
1984	Fibre size does not appear to influence the ease of enzymatic hydrolysis of organosolv-pretreated softwoods. **2012**, 107, 235-42	43
1983	Elucidation of cellulose accessibility, hydrolysability and reactivity as the major limitations in the enzymatic hydrolysis of cellulose. **2012**, 107, 243-50	54
1982	Effects of hardwood structural and chemical characteristics on enzymatic hydrolysis for biofuel production. **2012**, 110, 232-8	51
1981	Combination of enzymatic hydrolysis and ethanol organosolv pretreatments: effect on lignin structures, delignification yields and cellulose-to-glucose conversion. **2012**, 112, 156-63	95
1980	Effect of ionic liquid pretreatment on the chemical composition, structure and enzymatic hydrolysis of energy cane bagasse. **2012**, 117, 251-6	190
1979	Short duration microwave assisted pretreatment enhances the enzymatic saccharification and fermentable sugar yield from sugarcane bagasse. **2012**, 37, 109-116	259
1978	Mechanical properties and water absorption behaviour of recycled cellulose fibre reinforced epoxy composites. **2012**, 31, 620-628	168

1977	Enhanced enzymatic hydrolysis of triploid poplar following stepwise acidic pretreatment and alkaline fractionation. **2012**, 47, 619-625		27
1976	The effect of acetylation on the crystallinity of BC/CNTs nanocomposite. **2012**, 87, 431-435		7
1975	Decrement of cellulose recalcitrance by treatment with ionic liquid (1-ethyl-3-methylimidazolium acetate) as a strategy to enhance enzymatic hydrolysis. **2012**, 87, 629-634		7
1974	Elucidating the effects of laccase-modifying compounds treatments on bast and core fibers in flax pulp. **2012**, 109, 225-33		5
1973	Preparation and characterization of degradable oxidized bacterial cellulose reacted with nitrogen dioxide. **2012**, 68, 415-423		23
1972	Studies concerning the accessibility of different allomorphic forms of cellulose. **2012**, 19, 55-68		28
1971	Influence of organic liquids on the nanostructure of precipitated cellulose. **2013**, 127, 2620-2627		5
1970	Structure and thermomechanical properties of stretched cellulose films. **2013**, 128, 181-187		8
1969	Unraveling the structure of sugarcane bagasse after soaking in concentrated aqueous ammonia (SCAA) and ethanol production by Scheffersomyces (Pichia) stipitis. *Biotechnology for Biofuels*, **2013**, 6, 102	7.8	36
1968	Structural reorganisation of cellulose fibrils in hydrothermally deconstructed lignocellulosic biomass and relationships with enzyme digestibility. *Biotechnology for Biofuels*, **2013**, 6, 33	7.8	38
1967	Assessing the molecular structure basis for biomass recalcitrance during dilute acid and hydrothermal pretreatments. *Biotechnology for Biofuels*, **2013**, 6, 15	7.8	402
1966	Kinetic study of aspen-wood sawdust delignification by H2O2 with sulfuric acid catalyst under mild conditions. **2013**, 110, 271-280		12
1965	Two-parameter kinetic model based on a time-dependent activity coefficient accurately describes enzymatic cellulose digestion. **2013**, 52, 5656-64		34
1964	Fabrication of advanced □green□composites using potassium hydroxide (KOH) treated liquid crystalline (LC) cellulose fibers. **2013**, 48, 3950-3957		15
1963	Okra (Abelmoschus esculentus) Fibre Based PLA Composites: Mechanical Behaviour and Biodegradation. **2013**, 21, 726-737		36
1962	Cellulose diacetate reinforced with electrospun cellulose fiber: A new route to prepare an all cellulose-based composite. **2013**, 53, 10-15		8
1961	Fabrication and characterisation of □chitin nanofibers and highly transparent chitin films by pulsed ultrasonication. **2013**, 98, 1497-504		109
1960	Treatment of Furfural Residue by Solvent Extraction for Enzymatic Hydrolysis: Effect of Delignification on the Structure and Digestibility. **2013**, 6, 1022-1029		2

1959	Effects of pressurized hot water extraction on the nanoscale structure of birch sawdust. **2013**, 20, 2335-2347	26
1958	Effects of pH on pretreatment of sugarcane bagasse using aqueous imidazolium ionic liquids. **2013**, 15, 431-438	42
1957	Transformation of wood during ozonization in the presence of hydrogen peroxide. **2013**, 87, 1102-1107	8
1956	Three lignocellulose features that distinctively affect biomass enzymatic digestibility under NaOH and H2SO4 pretreatments in Miscanthus. **2013**, 130, 30-7	90
1955	Studies of the fibre structure and dyeing properties of Calotropis gigantea, kapok and cotton fibres. **2013**, 129, 448-453	36
1954	Preparation of Nanofibrillated Cellulose and Cellulose Whiskers. **2013**, 309-338	5
1953	Catalytic Investigation of in Situ Generated Ni Metal Nanoparticles for Tar Conversion during Biomass Pyrolysis. **2013**, 117, 23812-23831	81
1952	Impact of pretreatments on morphology and enzymatic saccharification of shedding bark of Melaleuca leucadendron. **2013**, 139, 410-4	5
1951	Combination of dilute acid and ionic liquid pretreatments of sugarcane bagasse for glucose by enzymatic hydrolysis. **2013**, 48, 1942-1946	45
1950	Chemical and morphological changes in hydrochars derived from microcrystalline cellulose and investigated by chromatographic, spectroscopic and adsorption techniques. **2013**, 150, 98-105	26
1949	Production of 2,3-butanediol from cellulose and Jatropha hulls after ionic liquid pretreatment and dilute-acid hydrolysis. **2013**, 3, 48	20
1948	Modification of crystallinity and pore size distribution in coagulated cellulose films. **2013**, 20, 1657-1667	56
1947	Cellulose polymorphism study with sum-frequency-generation (SFG) vibration spectroscopy: identification of exocyclic CH2OH conformation and chain orientation. **2013**, 20, 991-1000	64
1946	Characterization of crystalline cellulose in biomass: Basic principles, applications, and limitations of XRD, NMR, IR, Raman, and SFG. **2013**, 30, 2127-2141	113
1945	Use of cellobiohydrolase-free cellulase blends for the hydrolysis of microcrystalline cellulose and sugarcane bagasse pretreated by either ball milling or ionic liquid [Emim][Ac]. **2013**, 149, 551-5	16
1944	Low temperature pretreatment of sugarcane bagasse at atmospheric pressure using mixtures of ethylene carbonate and ethylene glycol. **2013**, 15, 255-264	23
1943	Crystallite width determines monolayer hydration across a wide spectrum of celluloses isolated from plants. **2013**, 117, 415-21	31
1942	Reconstitution of cellulose and lignin after [C2mim][OAc] pretreatment and its relation to enzymatic hydrolysis. **2013**, 110, 729-36	22

1941	Increase in ethanol production from sugarcane bagasse based on combined pretreatments and fed-batch enzymatic hydrolysis. **2013**, 128, 448-53	91
1940	Quantification of microfibril angle in secondary cell walls at subcellular resolution by means of polarized light microscopy. **2013**, 197, 1012-1019	39
1939	Cellulose polymorphy, crystallite size, and the Segal Crystallinity Index. **2013**, 20, 583-588	485
1938	New lignocellulose pretreatments using cellulose solvents: a review. **2013**, 88, 169-180	86
1937	Preparation of cellulose-graft-poly(e-caprolactone) nanomicelles by homogeneous ROP in ionic liquid. **2013**, 92, 77-83	74
1936	Ethanol production potential of sweet sorghum assessed using forage fiber analysis procedures. **2013**, 5, 358-366	19
1935	Optimization of hydrothermal pretreatment of lignocellulosic biomass in the bioethanol production process. **2013**, 6, 110-22	231
1934	Conversion of (ligno)cellulose feeds to isosorbide with heteropoly acids and Ru on carbon. **2013**, 6, 199-208	96
1933	Hydrolysis of acid and alkali presoaked lignocellulosic biomass exposed to electron beam irradiation. **2013**, 129, 646-9	29
1932	Fractionation of the main components of corn stover by formic acid and enzymatic saccharification of solid residue. **2013**, 50, 750-757	37
1931	Preparation and characterization of transparent silk fibroin/cellulose blend films. **2013**, 54, 5035-5042	57
1930	Effect of pretreatment on saccharification of sugarcane bagasse by complex and simple enzyme mixtures. **2013**, 148, 105-13	35
1929	Antimicrobial activity of nanocellulose conjugated with allicin and lysozyme. **2013**, 20, 2897-2907	60
1928	Amorphous ternary cyclodextrin nanocomposites of telmisartan for oral drug delivery: improved solubility and reduced pharmacokinetic variability. **2013**, 453, 423-32	33
1927	CP/MAS □□C NMR study of pulp hornification using nanocrystalline cellulose as a model system. **2013**, 92, 881-4	33
1926	Towards understanding structural changes of photoperiod-sensitive sorghum biomass during sulfuric acid pretreatment. **2013**, 135, 704-9	18
1925	Rapid analysis of purified cellulose extracted from perennial ryegrass (Lolium perenne) by instrumental analysis. **2013**, 146, 184-191	7
1924	Ethanol-based organosolv treatment with trace hydrochloric acid improves the enzymatic digestibility of Japanese cypress (Chamaecyparis obtusa) by exposing nanofibers on the surface. **2013**, 132, 64-70	37

1923	Loofa (Luffa cylindrica) sponge: review of development of the biomatrix as a tool for biotechnological applications. **2013**, 29, 573-600	64
1922	Quantification of cellulose nanowhiskers sulfate esterification levels. **2013**, 92, 1809-16	76
1921	Enzymatic hydrolysis and ethanol yields of combined surfactant and dilute ammonia treated sugarcane bagasse. **2013**, 131, 357-64	100
1920	Visualizing cellulase activity. **2013**, 110, 1529-49	42
1919	X-ray scattering studies of lignocellulosic biomass: a review. **2013**, 94, 904-17	63
1918	The Lignocellulolytic System of Thermophilic Fungi and Actinomycetes: Structure, Regulation, and Biotechnological Applications. **2013**, 731-769	
1917	A single-molecule analysis reveals morphological targets for cellulase synergy. **2013**, 9, 356-61	58
1916	Reinforced plastics and aerogels by nanocrystalline cellulose. **2013**, 15, 1	39
1915	Physical and Chemical Features of Pretreated Biomass that Influence Macro-/Micro-Accessibility and Biological Processing. **2013**, 281-310	30
1914	Hydrothermal liquefaction of cellulose in subcritical water□he role of crystallinity on the cellulose reactivity. **2013**, 3, 11035	56
1913	Processing of microcrystalline cellulose in dimethyl sulfoxide, urea and supercritical carbon dioxide. **2013**, 93, 698-708	6
1912	Preparation and characterization of novel acetylated cellulose ether (ACE) membranes for desalination applications. **2013**, 428, 533-545	15
1911	Bacterial Cellulose from Simple and Low Cost Production Media by Gluconacetobacter xylinus. **2013**, 21, 545-554	157
1910	Sum-frequency-generation vibration spectroscopy and density functional theory calculations with dispersion corrections (DFT-D2) for cellulose I□and I□**2013**, 117, 6681-92	79
1909	Cellulose nano-particles from Pandanus: viscometric and crystallographic studies. **2013**, 20, 429-438	22
1908	Thermal stability, flame retardancy and abrasion resistance of cotton and cotton□nen blends treated by sol□el silica coatings containing alumina micro- or nano-particles. **2013**, 98, 1428-1438	39
1907	Estimation of cellulose crystallinity of lignocelluloses using near-IR FT-Raman spectroscopy and comparison of the Raman and Segal-WAXS methods. **2013**, 61, 103-13	77
1906	Preparation and evaluation of agglomerated crystals by crystallo-co-agglomeration: an integrated approach of principal component analysis and Box-Behnken experimental design. **2013**, 452, 135-56	11

1905	Characterization and modeling of the moisture diffusion behavior of natural fibers. **2013**, 130, 297-306	75
1904	Effect of cellulose crystallinity on the formation of a liquid intermediate and on product distribution during pyrolysis. **2013**, 100, 56-66	150
1903	SO2 -catalyzed steam explosion: the effects of different severity on digestibility, accessibility, and crystallinity of lignocellulosic biomass. **2013**, 29, 909-16	33
1902	Recent advances in liquid biofuel production from algal feedstocks. **2013**, 102, 1371-1381	286
1901	Enhanced cellulase hydrolysis of eucalyptus waste fibers from pulp mill by Tween80-assisted ferric chloride pretreatment. **2013**, 61, 3293-300	19
1900	A mesoporous carbon-supported Pt nanocatalyst for the conversion of lignocellulose to sugar alcohols. **2013**, 6, 2281-9	32
1899	Liquid crystalline thermosets based on anisotropic phases of cellulose nanocrystals. **2013**, 20, 2569-2582	16
1898	Decomposition behaviors of various crystalline celluloses as treated by semi-flow hot-compressed water. **2013**, 20, 2321-2333	10
1897	Monitoring meso-scale ordering of cellulose in intact plant cell walls using sum frequency generation spectroscopy. **2013**, 163, 907-13	44
1896	Recent Progress in Fourier Transform Infrared (FTIR) Spectroscopy Study of Compositional, Structural and Physical Attributes of Developmental Cotton Fibers. **2013**, 6, 299-313	41
1895	Determination of Hemp Crystallinity by Different Evaluation Method. **2013**, 781-784, 2730-2733	1
1894	Global identification of multiple OsGH9 family members and their involvement in cellulose crystallinity modification in rice. **2013**, 8, e50171	44
1893	Bacterial genomes: what they teach us about cellulose degradation. **2013**, 4, 669-681	25
1892	Cellulose Contents of Some Abundant Indian Seaweed Species. **2013**, 8, 1934578X1300800	3
1891	Biomass enzymatic saccharification is determined by the non-KOH-extractable wall polymer features that predominately affect cellulose crystallinity in corn. **2014**, 9, e108449	27
1890	MALDI-TOF MS analysis of cellodextrins and xylo-oligosaccharides produced by hindgut homogenates of Reticulitermes santonensis. **2014**, 19, 4578-94	10
1889	Characterization of water-soluble exopolysaccharides from Gluconacetobacter xylinus and their impacts on bacterial cellulose crystallization and ribbon assembly. **2014**, 21, 3965-3978	38
1888	Impacts of fiber orientation and milling on observed crystallinity in jack pine. **2014**, 48, 1213-1227	11

1887	Lung biodurability and free radical production of cellulose nanomaterials. **2014**, 26, 733-49		45
1886	Chemical and ultrastructural changes in cotton cellulose induced by laundering and textile use. **2014**, 21, 4681-4691		24
1885	The correlation between the enzymatic saccharification and the multidimensional structure of cellulose changed by different pretreatments. *Biotechnology for Biofuels*, **2014**, 7, 134	7.8	45
1884	Effects of lignin modification on wheat straw cell wall deconstruction by Phanerochaete chrysosporium. *Biotechnology for Biofuels*, **2014**, 7, 161	7.8	21
1883	Hydrothermal treatment of microcrystalline cellulose under mild conditions: characterization of solid and liquid-phase products. **2014**, 21, 4483-4495		10
1882	The combination of plant-expressed cellobiohydrolase and low dosages of cellulases for the hydrolysis of sugar cane bagasse. *Biotechnology for Biofuels*, **2014**, 7, 131	7.8	24
1881	Behavior of cellulose and xylan in aqueous ammonia pretreatment. **2014**, 174, 2626-38		6
1880	Design and characterization of cellulose nanocrystal-enhanced epoxy hardeners. **2014**, 2, 193-205		24
1879	Properties Characterization of Chemically Modified Hemp Hurds. **2014**, 7, 8131-8150		112
1878	Development of self-microemulsifying drug delivery system and solid-self-microemulsifying drug delivery system of telmisartan. **2014**, 4, 195-206		40
1877	Cellulose synthesis and its regulation. **2014**, 12, e0169		85
1876	Changes in the supramolecular structures of cellulose after hydrolysis studied by terahertz spectroscopy and other methods. **2014**, 4, 57945-57952		9
1875	Systems biology defines the biological significance of redox-active proteins during cellulose degradation in an aerobic bacterium. **2014**, 94, 1121		42
1874	Selective oxidation of cellulose catalyzed by NHPI/Co(OAc)2 using air as oxidant. **2014**, 21, 4059-4065		9
1873	Investigation of the Degradation Kinetic Parameters and Structure Changes of Microcrystalline Cellulose in Subcritical Water. **2014**, 28, 6974-6980		21
1872	Surface structural dynamics of enzymatic cellulose degradation, revealed by combined kinetic and atomic force microscopy studies. **2014**, 281, 275-90		29
1871	Morphology and structure characterization of bacterial celluloses produced by different strains in agitated culture. **2014**, 117, 1305-11		32
1870	Chemical cationization of cotton fabric for improved dye uptake. **2014**, 21, 4693-4706		56

1869	Investigation of Primary Reactions and Secondary Effects from the Pyrolysis of Different Celluloses. **2014**, 2, 2820-2830		58
1868	Tunable mixed amorphous□rystalline cellulose substrates (MACS) for dynamic degradation studies by atomic force microscopy in liquid environments. **2014**, 21, 3927-3939		7
1867	Structural insights into rice straw pretreated by hot-compressed water in relation to enzymatic hydrolysis. **2014**, 174, 2278-94		9
1866	Nuclear magnetic resonance investigation of water accessibility in cellulose of pretreated sugarcane bagasse. *Biotechnology for Biofuels*, **2014**, 7, 127	7.8	21
1865	Deletion of Caldicellulosiruptor bescii CelA reveals its crucial role in the deconstruction of lignocellulosic biomass. *Biotechnology for Biofuels*, **2014**, 7, 142	7.8	44
1864	Correlating the ability of lignocellulosic polymers to constrain water with the potential to inhibit cellulose saccharification. *Biotechnology for Biofuels*, **2014**, 7, 159	7.8	32
1863	Preliminary study of relating cotton fiber tenacity and elongation with crystallinity. **2014**, 84, 1829-1839		4
1862	Host responses and metabolic profiles of wood components in Dutch elm hybrids with a contrasting tolerance to Dutch elm disease. **2014**, 114, 47-59		8
1861	A distinct model of synergism between a processive endocellulase (TfCel9A) and an exocellulase (TfCel48A) from Thermobifida fusca. **2014**, 80, 339-44		26
1860	Assessment of Lignocellulosic Biomass Using Analytical Spectroscopy: an Evolution to High-Throughput Techniques. **2014**, 7, 1-23		93
1859	Influence of water on swelling and dissolution of cellulose in 1-ethyl-3-methylimidazolium acetate. **2014**, 99, 438-46		43
1858	The Rietveld method as a tool to quantify the amorphous amount of microcrystalline cellulose. **2014**, 103, 1394-9		25
1857	Cellulase Systems in Trichoderma. **2014**, 229-244		9
1856	Enzymatic hydrolysis and characterization of waste lignocellulosic biomass produced after dye bioremediation under solid state fermentation. **2014**, 168, 136-41		40
1855	A pyranose dehydrogenase-based biosensor for kinetic analysis of enzymatic hydrolysis of cellulose by cellulases. **2014**, 58-59, 68-74		18
1854	Hydrolyzabilities of different corn stover fractions after aqueous ammonia pretreatment. **2014**, 172, 1506-16		8
1853	Functionalization of nanocrystalline cellulose for decontamination of Cr(III) and Cr(VI) from aqueous system: computational modeling approach. **2014**, 16, 1179-1191		72
1852	Determination of cellulose crystallinity by terahertz-time domain spectroscopy. **2014**, 86, 3780-6		47

1851	Scale-up Pretreatment Studies on Sugarcane Bagasse and Straw for Second-Generation Ethanol Production. **2014**, 225-254	2
1850	Hydrophobic cellulose nanopaper through a mild esterification procedure. **2014**, 21, 367-382	105
1849	Application of cellulose/chitosan grafted nano-magnetites as efficient and recyclable catalysts for selective synthesis of 3-indolylindolin-2-ones. **2014**, 392, 97-104	20
1848	A comprehensive mechanistic kinetic model for dilute acid hydrolysis of switchgrass cellulose to glucose, 5-HMF and levulinic acid. **2014**, 4, 23492	59
1847	Isolation and characterization of cellulose nanocrystals from spruce bark in a biorefinery perspective. **2014**, 111, 979-87	75
1846	Effect of modified cellulose nanocrystals on microstructural and mechanical properties of polyvinyl alcohol/ovalbumin biocomposite scaffolds. **2014**, 129, 61-64	24
1845	Comparative study on two-step concentrated acid hydrolysis for the extraction of sugars from lignocellulosic biomass. **2014**, 164, 221-31	65
1844	Surface modification of cellulose nanowhiskers for application in thermosetting epoxy polymers. **2014**, 21, 2529-2538	25
1843	Microwave pyrolysis of cellulose at low temperature. **2014**, 105, 91-99	42
1842	Nonenzymatic sugar production from biomass using biomass-derived □-valerolactone. **2014**, 343, 277-80	519
1841	Tight control of cellulose depolymerization towards glucose in organic electrolyte solutions. **2014**, 62, 158-165	4
1840	Preparation and characterization of nanocrystalline cellulose via low-intensity ultrasonic-assisted sulfuric acid hydrolysis. **2014**, 21, 335-346	186
1839	Understanding changes in cellulose crystalline structure of lignocellulosic biomass during ionic liquid pretreatment by XRD. **2014**, 151, 402-5	122
1838	Efficient biomass pretreatment using ionic liquids derived from lignin and hemicellulose. **2014**, 111, E3587-95	239
1837	The bark biorefinery: a side-stream of the forest industry converted into nanocomposites with high oxygen-barrier properties. **2014**, 21, 4583-4594	19
1836	Cel48A from Thermobifida fusca: structure and site directed mutagenesis of key residues. **2014**, 111, 664-73	34
1835	Comparison of dilute acid and sulfite pretreatments on Acacia confusa for biofuel application and the influence of its extractives. **2014**, 62, 10768-75	15
1834	Well defined thermostable cellulose nanocrystals via two-step ionic liquid swelling-hydrolysis extraction. **2014**, 21, 4195-4207	44

1833	The influence of fibril composition and dimension on the performance of paper gated oxide transistors. **2014**, 25, 094007		50
1832	Green process for chemical functionalization of nanocellulose with carboxylic acids. **2014**, 15, 4551-60		119
1831	Physical Insight into Switchgrass Dissolution in Ionic Liquid 1-Ethyl-3-methylimidazolium Acetate. **2014**, 2, 1264-1269		18
1830	Enhancing the carbon yield of cellulose based carbon fibres with ionic liquid impregnates. **2014**, 2, 15758-15762		18
1829	Reversibility of substrate adsorption for the cellulases Cel7A, Cel6A, and Cel7B from Hypocrea jecorina. **2014**, 30, 12602-9		19
1828	Effects of crystal orientation on cellulose nanocrystals-cellulose acetate nanocomposite fibers prepared by dry spinning. **2014**, 15, 3827-35		71
1827	One-Pot Conversion of Cellulose into n-Hexane over the Ir-ReOx/SiO2 Catalyst Combined with HZSM-5. **2014**, 2, 1819-1827		124
1826	Pulp properties resulting from different pretreatments of wheat straw and their influence on enzymatic hydrolysis rate. **2014**, 169, 206-212		16
1825	Dissolution enthalpies of cellulose in ionic liquids. **2014**, 113, 67-76		26
1824	Durability Assessment and Physical Properties Investigation of Modified Petung Bamboo (Dendrocalamus asper) as Resulted on Acetylation, Assisted by Supercritical CO2. **2014**, 9, 273-283		3
1823	Combined pretreatment using alkaline hydrothermal and ball milling to enhance enzymatic hydrolysis of oil palm mesocarp fiber. **2014**, 169, 236-243		47
1822	Surface esterification of cellulose nanofibers by a simple organocatalytic methodology. **2014**, 114, 416-423		57
1821	Effects of plant cell wall matrix polysaccharides on bacterial cellulose structure studied with vibrational sum frequency generation spectroscopy and X-ray diffraction. **2014**, 15, 2718-24		37
1820	Improving the enzymatic hydrolysis of thermo-mechanical fiber from Eucalyptus urophylla by a combination of hydrothermal pretreatment and alkali fractionation. *Biotechnology for Biofuels*, **2014**, 7, 116	7.8	19
1819	Cellulose nanofibrils generated from jute fibers with tunable polymorphs and crystallinity. **2014**, 2, 6402		61
1818	Hydrothermal decomposition of various crystalline celluloses as treated by semi-flow hot-compressed water. **2014**, 60, 278-286		38
1817	Changes of supramolecular cellulose structure and accessibility induced by the processive endoglucanase Cel9B from Paenibacillus barcinonensis. **2014**, 21, 203-219		13
1816	Utilizing cellulase as a hydrogen peroxide stabilizer to combine the biopolishing and bleaching procedures of cotton cellulose in one bath. **2014**, 21, 777-789		16

1815	Radial crystalline texture in a lyocell fibre revealed by synchrotron nanofocus wide-angle X-ray scattering. **2014**, 21, 845-851		5
1814	Microfibrillated cellulose and cellulose nanopaper from Miscanthus biogas production residue. **2014**, 21, 1601-1610		14
1813	Optimization of the process of chemical hydrolysis of cellulose to glucose. **2014**, 21, 2397-2407		31
1812	Combined sodium hydroxide and ammonium hydroxide pretreatment of post-biogas digestion dairy manure fiber for cost effective cellulosic bioethanol production. **2014**, 2, 12		16
1811	A novel approach for the preparation of nanocrystalline cellulose by using phosphotungstic acid. **2014**, 110, 415-22		159
1810	Mechanical performance of macrofibers of cellulose and chitin nanofibrils aligned by wet-stretching: a critical comparison. **2014**, 15, 2709-17		124
1809	Effect of mechanical disruption on the effectiveness of three reactors used for dilute acid pretreatment of corn stover Part 1: chemical and physical substrate analysis. *Biotechnology for Biofuels*, **2014**, 7, 57	7.8	37
1808	Multi-scale structural and chemical analysis of sugarcane bagasse in the process of sequential acid-base pretreatment and ethanol production by Scheffersomyces shehatae and Saccharomyces cerevisiae. *Biotechnology for Biofuels*, **2014**, 7, 63	7.8	103
1807	Structure and enzymatic accessibility of leaf and stem from wheat straw before and after hydrothermal pretreatment. *Biotechnology for Biofuels*, **2014**, 7, 74	7.8	20
1806	Pretreatment methods for bioethanol production. **2014**, 174, 43-62		79
1805	Stability and resistance of nickel catalysts for hydrodeoxygenation: carbon deposition and effects of sulfur, potassium, and chlorine in the feed. **2014**, 4, 3672-3686		57
1804	Water-polysaccharide interactions in the primary cell wall of Arabidopsis thaliana from polarization transfer solid-state NMR. **2014**, 136, 10399-409		80
1803	Supramolecular transitions in native cellulose-I during progressive oxidation reaction leading to quasi-spherical nanoparticles of 6-carboxycellulose. **2014**, 113, 615-23		19
1802	Comparison of changes in cellulose ultrastructure during different pretreatments of poplar. **2014**, 21, 2419-2431		37
1801	Identification of novel bacterial expansins and their synergistic actions on cellulose degradation. **2014**, 159, 64-71		27
1800	Advances in solid-state NMR of cellulose. **2014**, 27, 176-84		110
1799	A common strategy to extracting cellulose nanoentities from different plants. **2014**, 55, 140-148		101
1798	Catalytic hydrothermal pretreatment of corncob into xylose and furfural via solid acid catalyst. **2014**, 158, 313-20		82

1797	Advancing lignocellulose bioconversion through direct assessment of enzyme action on insoluble substrates. **2014**, 27, 123-33		25
1796	Quaternized and sulfated xylan derivative films. **2014**, 99, 356-64		17
1795	Analysis of a preferential action of □amylase from B. licheniformis towards amorphous regions of waxy maize starch. **2014**, 102, 80-7		31
1794	A small change in the surface polarity of cellulose causes a significant improvement in its conversion to glucose and subsequent catalytic oxidation. **2014**, 144, 528-537		13
1793	In situ stability of substrate-associated cellulases studied by DSC. **2014**, 30, 7134-42		14
1792	Use of nano-ATH as a multi-functional additive for poly(ethylene-co-vinyl acetate-co-carbon monoxide). **2014**, 71, 2081-2102		11
1791	Can cellulose be a sustainable feedstock for bioethanol production?. **2014**, 71, 77-80		35
1790	Flax Fiber. **2014**, 1-32		4
1789	Progressive structural changes of Avicel, bleached softwood, and bacterial cellulose during enzymatic hydrolysis. **2015**, 5, 15102		49
1788	Multiscale deconstruction of molecular architecture in corn stover. **2014**, 4, 3756		27
1787	Ethylenediamine pretreatment changes cellulose allomorph and lignin structure of lignocellulose at ambient pressure. *Biotechnology for Biofuels*, **2015**, 8, 174	7.8	44
1786	Quantitative (13)C MultiCP solid-state NMR as a tool for evaluation of cellulose crystallinity index measured directly inside sugarcane biomass. *Biotechnology for Biofuels*, **2015**, 8, 110	7.8	61
1785	Current Pretreatment Technologies for the Development of Cellulosic Ethanol and Biorefineries. **2015**, 8, 3366-90		259
1784	Hydroxyapatite Deposition on Modified Bacterial Cellulose Matrix. **2015**, 353, 128-132		1
1783	Behavior of biodegradable composites based on starch reinforced with modified cellulosic fibers. **2015**, 26, 1189-1197		5
1782	Structure and relaxation in cellulose hydrogels. **2015**, 132, n/a-n/a		9
1781	Probing Cellulose Acetylation in Binary Mixtures of an Ionic Liquid with Dimethylsulfoxide and Sulfolane by Chemical Kinetics, Viscometry, Spectroscopy, and Molecular Dynamics Simulations. **2015**, 216, 2368-2376		13
1780	Development of a High Throughput Platform for Screening Glycoside Hydrolases Based on Oxime-NIMS. **2015**, 3, 153		14

1779	Bacterial Cellulose Production from Industrial Waste and by-Product Streams. **2015**, 16, 14832-49		175
1778	Isolation and characterization of two cellulose morphology mutants of Gluconacetobacter hansenii ATCC23769 producing cellulose with lower crystallinity. **2015**, 10, e0119504		15
1777	Optimized Monitoring of Production of Cellulose Nanowhiskers fromOpuntia ficus-indica(Nopal Cactus). **2015**, 2015, 1-8		12
1776	Cationization of Alpha-Cellulose to Develop New Sustainable Products. **2015**, 2015, 1-9		10
1775	Influence of Strong Acid Hydrolysis Processing on the Thermal Stability and Crystallinity of Cellulose Isolated from Wheat Straw. **2015**, 2015, 1-11		28
1774	Pretreatment of Lignocellulosic Biomass. **2015**, 85-154		17
1773	Impact of the supramolecular structure of cellulose on the efficiency of enzymatic hydrolysis. *Biotechnology for Biofuels*, **2015**, 8, 56	7.8	69
1772	Impact of surfactant assisted acid and alkali pretreatment on lignocellulosic structure of pine foliage and optimization of its saccharification parameters using response surface methodology. **2015**, 192, 115-25		44
1771	Cellulose multilayer membranes manufacture with ionic liquid. **2015**, 490, 282-293		63
1770	Nanofibrillation of TEMPO-oxidized bleached hardwood kraft cellulose at high solids content. **2015**, 69, 1077-1088		19
1769	Innovative method to avoid the reduction of silver ions to silver nanoparticles $left({rm A}{{{rm g}}^{+}}to {rm Ag}{}^circ right)$ in silver ion conducting based polymer electrolytes. **2015**, 90, 035808		57
1768	Biocomposites of polyamide 4.10 and surface modified microfibrillated cellulose (MFC): influence of processing parameters on structure and thermomechanical properties. **2015**, 22, 2551-2569		21
1767	Lignosulphonate-cellulose derived porous activated carbon for supercapacitor electrode. **2015**, 3, 15049-15056		72
1766	Low-cost hemp biomaterials for nickel ions removal from aqueous solutions. **2015**, 209, 209-218		39
1765	Gel Spinning of Polyacrylonitrile/Cellulose Nanocrystal Composite Fibers. **2015**, 1, 610-616		41
1764	Optimization of dilute acid and hot water pretreatment of different lignocellulosic biomass: A comparative study. **2015**, 81, 9-18		75
1763	Characterization of ionic liquid pretreatment and the bioconversion of pretreated mixed softwood biomass. **2015**, 81, 1-8		50
1762	X-Ray Diffraction Patterns of Oil Palm Empty Fruit Bunch Fibers with Varying Crystallinity. **2015**, 1087, 321-328		6

1761	Tunable Semicrystalline Thin Film Cellulose Substrate for High-Resolution, In-Situ AFM Characterization of Enzymatic Cellulose Degradation. **2015**, 7, 27900-9	12
1760	Does cellulose II exist in native alga cell walls? Cellulose structure of Derbesia cell walls studied with SFG, IR and XRD. **2015**, 22, 3531-3540	8
1759	Effect of Alkaline Pretreatment on Properties of Lignocellulosic Oil Palm Waste. **2015**, 16, 195-201	26
1758	Characterization of kenaf fiber composites prepared with tributyl citrate plasticized cellulose acetate. **2015**, 70, 52-58	27
1757	Study of Adsorption of Janus Green B and Methylene Blue on Nanocrystalline Cellulose. **2015**, 62, 149-162	15
1756	A transparent, hazy, and strong macroscopic ribbon of oriented cellulose nanofibrils bearing poly(ethylene glycol). **2015**, 27, 2070-6	154
1755	Physical and Chemical Characterizations of Corn Stover from Leading Pretreatment Methods and Effects on Enzymatic Hydrolysis. **2015**, 3, 140-146	49
1754	Extraction and Characterization of Natural Cellulose Fibers from Maize Tassel. **2015**, 20, 99-109	48
1753	Fungal cellulases. **2015**, 115, 1308-448	513
1752	An improved X-ray diffraction method for cellulose crystallinity measurement. **2015**, 123, 476-81	121
1751	A chemical, morphological and mineralogical study on the interaction between hemp hurds and aerial and natural hydraulic lime particles: Implications for mortar manufacturing. **2015**, 75, 375-384	29
1750	Comparison of highly transparent all-cellulose nanopaper prepared using sulfuric acid and TEMPO-mediated oxidation methods. **2015**, 22, 1123-1133	82
1749	Structural features of dilute acid, steam exploded, and alkali pretreated mustard stalk and their impact on enzymatic hydrolysis. **2015**, 124, 265-73	79
1748	Comprehensive analysis of cellulose content, crystallinity, and lateral packing in Gossypium hirsutum and Gossypium barbadense cotton fibers using sum frequency generation, infrared and Raman spectroscopy, and X-ray diffraction. **2015**, 22, 971-989	40
1747	Comprehensive Characterization of Napier Grass as a Feedstock for Thermochemical Conversion. **2015**, 8, 3403-3417	80
1746	Design carboxymethyl cotton knitted fabrics for wound dressing applications: Solvent effects. **2015** , 87, 238-244	15
1745	Characterization of cellulose I/II hybrid fibers isolated from energycane bagasse during the delignification process: Morphology, crystallinity and percentage estimation. **2015**, 133, 438-47	95
1744	Stress Transfer Quantification in Gelatin-Matrix Natural Composites with Tunable Optical Properties. **2015**, 16, 1784-93	14

1743	Production of cellulose nanocrystals via a scalable mechanical method. **2015**, 5, 57133-57140	52
1742	In-vitro release of fragrant l-carvone from electrospun poly(?-caprolactone)/wheat cellulose scaffold. **2015**, 133, 328-36	7
1741	Effects of Delignification on Crystalline Cellulose in Lignocellulose Biomass Characterized by Vibrational Sum Frequency Generation Spectroscopy and X-ray Diffraction. **2015**, 8, 1750-1758	29
1740	Cellulose produced by Gluconacetobacter xylinus strains ATCC 53524 and ATCC 23768: Pellicle formation, post-synthesis aggregation and fiber density. **2015**, 133, 270-6	41
1739	Corncob lignocellulose for the production of furfural by hydrothermal pretreatment and heterogeneous catalytic process. **2015**, 5, 60264-60272	23
1738	Combining biomass wet disk milling and endoglucanase/□glucosidase hydrolysis for the production of cellulose nanocrystals. **2015**, 128, 75-81	39
1737	Cellulase biocatalysis: key influencing factors and mode of action. **2015**, 22, 2157-2182	21
1736	Reversible and non-reactive cellulose separations from ionic liquid mixtures with compressed carbon dioxide. **2015**, 51, 12649-52	11
1735	PCL/PVA nanoencapsulated reinforcing fillers of steam exploded/autoclaved cellulose nanofibrils for tissue engineering applications. **2015**, 5, 23999-24008	27
1734	Water vapor permeation through cellulose acetate membranes and its impact upon membrane separation performance for natural gas purification. **2015**, 487, 249-255	51
1733	Effect of torrefaction on biomass structure and hydrocarbon production from fast pyrolysis. **2015**, 17, 2406-2417	94
1732	Optimized methods for obtaining cellulose and cellulose sulfates from birch wood. **2015**, 49, 825-843	9
1731	Vibrational spectral signatures of crystalline cellulose using high resolution broadband sum frequency generation vibrational spectroscopy (HR-BB-SFG-VS). **2015**, 22, 1469-1484	15
1730	Tailoring the yield and characteristics of wood cellulose nanocrystals (CNC) using concentrated acid hydrolysis. **2015**, 22, 1753-1762	239
1729	Determination of Cellulose Fiber Structure Using IR Reflectance Spectroscopy of Paper. **2015**, 81, 1037-1043	6
1728	Impact of Pretreatment Technologies on Saccharification and Isopentenol Fermentation of Mixed Lignocellulosic Feedstocks. **2015**, 8, 1004-1013	34
1727	Effects of periodate oxidation on cellulose polymorphs. **2015**, 22, 2245-2261	57
1726	Enhanced materials from nature: nanocellulose from citrus waste. **2015**, 20, 5908-23	87

1725	Production, characterization, and biogas application of magnetic hydrochar from cellulose. **2015**, 186, 34-43	32
1724	Biosynthesis of bacterial cellulose in the presence of different nanoparticles to create novel hybrid materials. **2015**, 129, 148-55	36
1723	Surface-modified nano-cellulose as reinforcement in poly(lactic acid) to conform new composites. **2015**, 71, 44-53	149
1722	Enhanced direct production of sorbitol by cellulose ball-milling. **2015**, 17, 2973-2980	70
1721	The effect of fibril length and architecture on the accessibility of reducing ends of cellulose I to Trichoderma reesei Cel7A. **2015**, 22, 1697-1713	11
1720	Surface properties of woody thin boards composed of commercially available lignin and cellulose: Relationship between the orientation of lignin and water repellency. **2015**, 347, 406-413	4
1719	The N-Terminal GH10 Domain of a Multimodular Protein from Caldicellulosiruptor bescii Is a Versatile Xylanase/ Glucanase That Can Degrade Crystalline Cellulose. **2015**, 81, 3823-33	39
1718	Preparation and characterization of nanocellulose from beer industrial residues using acid hydrolysis/ultrasound. **2015**, 16, 529-536	54
1717	Impact of CAD-deficiency in flax on biogas production. **2015**, 24, 971-8	5
1716	Analytical Methods for Lignocellulosic Biomass Structural Polysaccharides. **2015**, 1121-1180	1
1715	Fabrication of cellulose nanocrystal supported stable Fe(0) nanoparticles: a sustainable catalyst for dye reduction, organic conversion and chemo-magnetic propulsion. **2015**, 22, 3755-3771	40
1714	Subcritical Water: A Method for Green Production of Cellulose Nanocrystals. **2015**, 3, 2839-2846	108
1713	Nanocrystalline cellulose for removal of tetracycline hydrochloride from water via biosorption: Equilibrium, kinetic and thermodynamic studies. **2015**, 84, 240-249	75
1712	Correlations of Apparent Cellulose Crystallinity Determined by XRD, NMR, IR, Raman, and SFG Methods. **2015**, 115-131	24
1711	Analysis of the lignocellulosic components of biomass residues for biorefinery opportunities. **2015**, 144, 696-703	86
1710	Assessment of holocellulose for the production of bioethanol by conserving Pinus radiata cones as renewable feedstock. **2015**, 162, 215-20	14
1709	Preparation and characterization of candelilla fiber (Euphorbia antisyphilitica) and its reinforcing effect in polypropylene composites. **2015**, 22, 3839-3849	13
1708	Effects of grinding processes on anaerobic digestion of wheat straw. **2015**, 74, 450-456	40

1707	Comparison of acid sulfite (AS)- and prehydrolysis kraft (PHK)-based dissolving pulps. **2015**, 22, 4017-4026		38
1706	Cellulolytic and electrogenic activity of Enterobacter cloacae in mediatorless microbial fuel cell. **2015**, 160, 88-93		24
1705	Electrospun nickel oxide nanofibers: Microstructure and surface evolution. **2015**, 357, 1333-1342		4
1704	Accelerated retting cum softening of coconut fibre. **2015**, 77, 66-73		42
1703	Gaseous ammonia pretreatment lowers the required energy input for fine milling-enhanced enzymatic saccharification of switchgrass. *Biotechnology for Biofuels*, **2015**, 8, 139	7.8	7
1702	Study of silica templates in the rice husk and the carbon–silica nanocomposites produced from rice husk. **2015**, 87, 58-63		29
1701	Cellulose/nanoclay composite films with high water vapor resistance and mechanical strength. **2015**, 22, 3941-3953		14
1700	Controlled molecular reorientation enables strong cellulose fibers regenerated from ionic liquid solutions. **2015**, 75, 119-124		5
1699	Forest residues as renewable resources for bio-based polymeric materials and bioenergy: chemical composition, structure and thermal properties. **2015**, 22, 3409-3423		25
1698	How Alkyl Chain Length of Alcohols Affects Lignin Fractionation and Ionic Liquid Recycle During Lignocellulose Pretreatment. **2015**, 8, 973-981		13
1697	The density and crystallinity properties of PPO-silica mixed-matrix membranes produced via the in situ sol-gel method for H2/CO2 separation. II: Effect of thermal annealing treatment. **2015**, 104, 319-332		27
1696	Bioprocess Evaluation of Water Soaking-Based Microbiological Biodegradation with Exposure of Cellulosic Microfibers Relevant to Bioconversion Efficiency. **2015**, 176, 2290-302		
1695	Hydrogels Nanocomposites Based on Crystals, Whiskers and Fibrils Derived from Biopolymers. **2015**, 43-71		11
1694	Pretreatment of miscanthus using 1,3-dimethyl-imidazolium methyl phosphonate (DMIMMPh) ionic liquid for glucose recovery and ethanol production. **2015**, 5, 61455-61464		19
1693	The effect of chronic gamma ray irradiation on lignocellulose of Brachypodium distachyon. **2015**, 22, 2419-2430		8
1692	Unique antioxidant and sulfur corrosion retardant properties of transformer oil blended with turmerone extract. **2015**, 22, 2798-2808		6
1691	Improving alkaline pretreatment method for preparation of whole rice waste biomass feedstock and bioethanol production. **2015**, 5, 97171-97179		42
1690	Different response between woody core and bark of goat willow (Salix caprea L.) to concentrated phosphoric acid pretreatment followed by enzymatic saccharification. **2015**, 81, 21-26		12

1689	Determination of cellulose crystallinity from powder diffraction diagrams. **2015**, 103, 67-73	11
1688	Isolation and characterization of crystalline, autofluorescent, cellulose nanocrystals from saw dust wastes. **2015**, 65, 550-555	36
1687	Solid-state NMR to quantify surface coverage and chain length of lactic acid modified cellulose nanocrystals, used as fillers in biodegradable composites. **2015**, 107, 1-9	63
1686	Cellulose amorphization by swelling in ionic liquid/water mixtures: a combined macroscopic and second-harmonic microscopy study. **2015**, 8, 82-6	10
1685	Structural changes of Salix miyabeana cellulose fibres during dilute-acid steam explosion: impact of reaction temperature and retention time. **2015**, 119, 8-17	22
1684	High-level hemicellulosic arabinose predominately affects lignocellulose crystallinity for genetically enhancing both plant lodging resistance and biomass enzymatic digestibility in rice mutants. **2015**, 13, 514-25	102
1683	Microwave heating and hydrolysis of rubber wood biomass in ionic liquids. **2015**, 90, 2050-2056	19
1682	Bioethanol from maize cell walls: genes, molecular tools, and breeding prospects. **2015**, 7, 591-607	14
1681	Properties of ultrasound extracted bicomponent lignocellulose thin films. **2015**, 23, 148-55	42
1680	Assessment of integrated process based on hydrothermal and alkaline treatments for enzymatic saccharification of sweet sorghum stems. **2015**, 175, 473-9	58
1679	Comparison of aqueous ammonia and dilute acid pretreatment of bamboo fractions: Structure properties and enzymatic hydrolysis. **2015**, 175, 529-36	51
1678	Morphological properties of nanofibrillated cellulose produced using wet grinding as an ultimate fibrillation process. **2015**, 50, 531-541	92
1677	Theory, practice and prospects of X-ray and neutron scattering for lignocellulosic biomass characterization: towards understanding biomass pretreatment. **2015**, 8, 436-455	75
1676	A thermodynamic investigation of the cellulose allomorphs: Cellulose(am), cellulose I(cr), cellulose II(cr), and cellulose III(cr). **2015**, 81, 184-226	39
1675	Effect of phosphoric acid pretreatment of corncobs on the fermentability of Clostridium beijerinckii TISTR 1461 for biobutanol production. **2015**, 45, 173-91	11
1674	Multifunctional cellulolytic auxiliary activity protein HcAA10-2 from Hahella chejuensis enhances enzymatic hydrolysis of crystalline cellulose. **2015**, 99, 3041-55	23
1673	Characterization of cellulose and other exopolysaccharides produced from Gluconacetobacter strains. **2015**, 115, 663-9	51
1672	Schizophyllum communeLipase Production on Pretreated Sugarcane Bagasse and Its Effectiveness. **2016**, 2016, 1-6	3

1671	Influence of Cellulose on the Mechanical and Thermal Stability of ABS Plastic Composites. **2016**, 2016, 1-10		7
1670	Development of Thermophilic Tailor-Made Enzyme Mixtures for the Bioconversion of Agricultural and Forest Residues. **2016**, 7, 177		25
1669	Quantitative and Qualitative Analysis of Surface Modified Cellulose Utilizing TGA-MS. **2016**, 9,		44
1668	Chalcone Synthase (CHS) Gene Suppression in Flax Leads to Changes in Wall Synthesis and Sensing Genes, Cell Wall Chemistry and Stem Morphology Parameters. **2016**, 7, 894		22
1667	Cellulose Nanocrystal Membranes as Excipients for Drug Delivery Systems. **2016**, 9,		33
1666	Alkalization and Cationization of Cellulose: Effects on intrinsic viscosity. **2016**, 17, 857-861		8
1665	Preparation and characterization of thermally stable cellulose nanocrystals via a sustainable approach of FeCl3-catalyzed formic acid hydrolysis. **2016**, 23, 2389-2407		98
1664	Cellulose nanocrystal surface functionalization for the controlled sorption of water and organic vapours. **2016**, 23, 2955-2970		25
1663	Production of bacterial nanocellulose from wine industry residues: Importance of fermentation time on pellicle characteristics. **2016**, 133, n/a-n/a		48
1662	Nanocomposites of PBAT and cellulose nanocrystals modified by in situ polymerization and melt extrusion. **2016**, 56, 1339-1348		27
1661	Characterization of biomass char formation investigated by advanced solid state NMR. **2016**, 108, 165-177		42
1660	Preparation and characterization of cellulose paper/polypyrrole/bromophenol blue composites for disposable optical sensors. **2016**, 14, 404-411		11
1659	Study on the suitability of bamboo fiber for manufacturing insulating presspaper. **2016**, 23, 3641-3651		2
1658	Enhancing mechanical strength and breakdown behavior of insulating presspaper by introduction of nanofibrillated cellulose. **2016**,		2
1657	Valorization of lignin and cellulose in acid-steam-exploded corn stover by a moderate alkaline ethanol post-treatment based on an integrated biorefinery concept. *Biotechnology for Biofuels*, **2016**, 9, 238	7.8	22
1656	A comparative guide to controlled hydrophobization of cellulose nanocrystals via surface esterification. **2016**, 23, 1825-1846		41
1655	Initial reaction mechanisms of cellulose pyrolysis revealed by ReaxFF molecular dynamics. **2016**, 177, 130-141		110
1654	Fast environment-friendly ball mill-assisted deep eutectic solvent-based extraction of natural products. **2016**, 1443, 262-6		57

1653	Green One-Pot Synthesis of Surface Hydrophobized Cellulose Nanocrystals in Aqueous Medium. **2016**, 4, 3927-3938		64
1652	Effects and mechanism of ball milling on torrefaction of pine sawdust. **2016**, 214, 242-247		40
1651	Development of a Highly Efficient Pretreatment Sequence for the Enzymatic Saccharification of Loblolly Pine Wood. **2016**, 4, 3669-3678		12
1650	Isolation and structural characterization of cellulose nanocrystals extracted from garlic straw residues. **2016**, 87, 287-296		161
1649	Structural analysis of Gossypium hirsutum fibers grown under greenhouse and hydroponic conditions. **2016**, 194, 292-302		7
1648	Effect of alkaline ultrasonic pretreatment on crystalline morphology and enzymatic hydrolysis of cellulose. **2016**, 23, 1725-1740		40
1647	Mechanical and structural property analysis of bacterial cellulose composites. **2016**, 144, 447-53		91
1646	An isolated Amycolatopsis sp. GDS for cellulase and xylanase production using agricultural waste biomass. **2016**, 120, 112-25		28
1645	Acetosolv treatment of fibers from waste agave leaves: Influence of process variables and microstructural study. **2016**, 86, 163-172		22
1644	Real-time single molecular study of a pretreated cellulose hydrolysis mode and individual enzyme movement. *Biotechnology for Biofuels*, **2016**, 9, 85	7.8	9
1643	Microwave-assisted hydrothermal treatment of corncob using tin(IV) chloride as catalyst for furfural production. **2016**, 23, 1649-1661		14
1642	Tuning of cellulose fibres' structure and surface topography: Influence of swelling and various drying procedures. **2016**, 148, 227-35		15
1641	Lactic acid production from rice straw in alkaline hydrothermal conditions in presence of NiO nanoplates. **2016**, 274, 40-48		25
1640	Ball mill assisted rapid mechanochemical extraction method for natural products from plants. **2016**, 1449, 8-16		21
1639	Ionic liquid functionalized cellulose as an efficient heterogeneous catalyst for the facile and green synthesis of benzoxazine, pyrazine and quinoxaline derivatives in aqueous media. **2016**, 13, 1517-1524		6
1638	Hydrophobic nanocoating of cellulose by solventless mechanical milling. **2016**, 18, 3006-3012		22
1637	Consolidated bioprocessing of Populus using Clostridium (Ruminiclostridium) thermocellum: a case study on the impact of lignin composition and structure. *Biotechnology for Biofuels*, **2016**, 9, 31	7.8	44
1636	The impact of alterations in lignin deposition on cellulose organization of the plant cell wall. *Biotechnology for Biofuels*, **2016**, 9, 126	7.8	18

1635	Characterization of Colombian Agroindustrial Biomass Residues as Energy Resources. **2016**, 30, 8386-8398		36
1634	Effect of cellulose crystallinity on bacterial cellulose assembly. **2016**, 23, 3417-3427		31
1633	Distinct Chiral Nematic Self-Assembling Behavior Caused by Different Size-Unified Cellulose Nanocrystals via a Multistage Separation. **2016**, 32, 9863-72		39
1632	Timing in Analytical Pyrolysis: Py(HMDS)-GC/MS of Glucose and Cellulose Using Online Micro Reaction Sampler. **2016**, 88, 9318-25		27
1631	Activation of lignocellulosic biomass for higher sugar yields using aqueous ionic liquid at low severity process conditions. *Biotechnology for Biofuels*, **2016**, 9, 160	7.8	39
1630	An efficient pretreatment for the selectively hydrothermal conversion of corncob into furfural: The combined mixed ball milling and ultrasonic pretreatments. **2016**, 94, 721-728		16
1629	Morphology, thermal stability and thermal degradation kinetics of cellulose-modified urea–formaldehyde resin. **2016**, 39, 1609-1618		20
1628	Effect of Protic and Aprotic Solvents on the Mechanism of Cellulose Dissolution in Ionic Liquids: A Combined Molecular Dynamics and Experimental Insight. **2016**, 1, 4823-4832		14
1627	Fruit and Vegetable Processing Waste. **2016**, 23-59		21
1626	Preparation and characterization of functional cellulose nanofibrils via formic acid hydrolysis pretreatment and the followed high-pressure homogenization. **2016**, 94, 736-745		80
1625	Structural modifications of cellulose samples after dissolution into various solvent systems. **2016**, 408, 8403-8414		13
1624	Chemical treatment of teff straw by sodium hydroxide, phosphoric acid and zinc chloride: adsorptive removal of chromium. **2016**, 13, 2415-2426		18
1623	Characterization of cellulose structure of Populus plants modified in candidate cellulose biosynthesis genes. **2016**, 94, 146-154		19
1622	The effect of cellulose molar mass on the properties of palmitate esters. **2016**, 151, 988-995		18
1621	New and improved method of investigation using thermal tools for characterization of cellulose from eucalypts pulp. **2016**, 638, 44-51		9
1620	Efficient sugar production from sugarcane bagasse by microwave assisted acid and alkali pretreatment. **2016**, 93, 269-278		87
1619	Comparison of steam-alkali-chemical and microwave-alkali pretreatment for enhancing the enzymatic saccharification of oil palm trunk. **2016**, 99, 738-746		35
1618	Comprehensive morphological and structural investigation of cellulose I and II nanocrystals prepared by sulphuric acid hydrolysis. **2016**, 6, 76017-76027		59

1617	Optimization of Hydrothermal Pretreatment of Hardwood and Softwood Lignocellulosic Residues for Selective Hemicellulose Recovery and Improved Cellulose Enzymatic Hydrolysis. **2016**, 4, 4529-4544		117
1616	Nanocellulose characteristics from the inner and outer layer of banana pseudo-stem prepared by TEMPO-mediated oxidation. **2016**, 23, 3023-3037		33
1615	Acid-free extraction of cellulose type I nanocrystals using Brønsted acid-type ionic liquids. **2016**, 2, 65-75		21
1614	Nanocellulose prepared by acid hydrolysis of isolated cellulose from sugarcane bagasse. **2016**, 107, 012045		104
1613	On the chemical filler–polymer interaction of nano- and micro-sized ZIF-11 in PBI mixed matrix membranes and their application for H2/CO2 separation. **2016**, 4, 14334-14341		41
1612	Preparation of chitin nanofibers by surface esterification of chitin with maleic anhydride and mechanical treatment. **2016**, 153, 55-59		34
1611	Consolidation of Natural Polymer Powder by Severe Shear Deformation. **2016**, 181-210		
1610	In vitro biodegradability of bacterial cellulose by cellulase in simulated body fluid and compatibility in vivo. **2016**, 23, 3187-3198		33
1609	New insights into the material chemistry of polycaprolactone-grafted cellulose nanofibrils/polyurethane nanocomposites. **2016**, 23, 2457-2473		19
1608	Functional characterization of the native swollenin from Trichoderma reesei: study of its possible role as C1 factor of enzymatic lignocellulose conversion. *Biotechnology for Biofuels*, **2016**, 9, 178	7.8	29
1607	A Novel Carbohydrate-binding Module from Sugar Cane Soil Metagenome Featuring Unique Structural and Carbohydrate Affinity Properties. **2016**, 291, 23734-23743		13
1606	Effect of surface-grafted cellulose nanocrystals on the thermal and mechanical properties of PLLA based nanocomposites. **2016**, 84, 173-187		33
1605	Comparison of two-stage acid-alkali and alkali-acid pretreatments on enzymatic saccharification ability of the sweet sorghum fiber and their physicochemical characterizations. **2016**, 221, 636-644		28
1604	Non-exchanging hydroxyl groups on the surface of cellulose fibrils: The role of interaction with water. **2016**, 434, 136-142		49
1603	Wood-Derived Materials for Green Electronics, Biological Devices, and Energy Applications. **2016**, 116, 9305-74		802
1602	Surface characterization and chemical analysis of bamboo substrates pretreated by alkali hydrogen peroxide. **2016**, 216, 1098-101		50
1601	Enhanced Bioethanol Production from Blue Agave Bagasse in a Combined Extrusion–Saccharification Process. **2016**, 9, 1005-1014		24
1600	Mechanical properties of natural rubber nanocomposites reinforced with high aspect ratio cellulose nanocrystals isolated from soy hulls. **2016**, 153, 143-152		125

1599	Influence of Crystal Allomorph and Crystallinity on the Products and Behavior of Cellulose during Fast Pyrolysis. **2016**, 4, 4662-4674	49
1598	High Modulus Regenerated Cellulose Fibers Spun from a Low Molecular Weight Microcrystalline Cellulose Solution. **2016**, 4, 4545-4553	36
1597	Gelatinization and decrystallization of cellulose by newly isolated Arthrobotrys sp. CX1 to facilitate cellulose degradability. **2016**, 23, 3543-3554	0
1596	Models of supramolecular structure and properties of cellulose. **2016**, 58, 925-943	17
1595	Catalytic Upstream Biorefining through Hydrogen Transfer Reactions: Understanding the Process from the Pulp Perspective. **2016**, 9, 3171-3180	52
1594	Charred bone: Physical and chemical changes during laboratory simulated heating under reducing conditions and its relevance for the study of fire use in archaeology. **2016**, 10, 282-292	25
1593	Efficient evaluation of cellulose digestibility by Trichoderma reesei Rut-C30 cultures in online monitored shake flasks. **2016**, 15, 164	15
1592	Renewable High-Performance Fibers from the Chemical Recycling of Cotton Waste Utilizing an Ionic Liquid. **2016**, 9, 3250-3258	60
1591	The effect of acid content on the poly(furfuryl) alcohol/cellulose composites. **2016**, 37, 2434-2441	8
1590	Poly(methyl methacrylate)-grafted cellulose nanocrystals: One-step synthesis, nanocomposite preparation, and characterization. **2016**, 94, 811-822	42
1589	Low-temperature pyrolysis on jute fibers as a thermochemical modification method. **2016**, 17, 540-552	2
1588	Genetic modification of plant cell walls to enhance biomass yield and biofuel production in bioenergy crops. **2016**, 34, 997-1017	131
1587	Nickel oxide-deposited cellulose/CNT composite electrode for non-enzymatic urea detection. **2016**, 236, 304-310	28
1586	Nanostructured Cellulose II Gel Consisting of Spherical Particles. **2016**, 4, 4424-4432	29
1585	Isolation and identification of cellulose-producing strain Komagataeibacter intermedius from fermented fruit juice. **2016**, 151, 827-833	29
1584	Chemical- and Solvent-Free Mechanophysical Fractionation of Biomass Induced by Tribo-Electrostatic Charging: Separation of Proteins and Lignin. **2016**, 4, 4166-4173	29
1583	(13)C NMR assignments of regenerated cellulose from solid-state 2D NMR spectroscopy. **2016**, 151, 480-487	49
1582	Processing, microstructure and thermoluminescence response of biomorphic yttrium oxide ceramics. **2016**, 42, 13291-13295	11

1581	Correlating Cellulose Nanocrystal Particle Size and Surface Area. **2016**, 32, 6105-14		98
1580	Tissue-specific distribution of hemicelluloses in six different sugarcane hybrids as related to cell wall recalcitrance. *Biotechnology for Biofuels*, **2016**, 9, 99	7.8	23
1579	Ultrahigh-rate supercapacitors with large capacitance based on edge oriented graphene coated carbonized cellulous paper as flexible freestanding electrodes. **2016**, 325, 152-160		53
1578	Integrated biorefinery concept for grass silage using a combination of adapted pulping methods for advanced saccharification and extraction of lignin. **2016**, 216, 462-70		14
1577	The influence of thermo-hygro-mechanical treatment on the micro- and nanoscale architecture of wood cell walls using small- and wide-angle X-ray scattering. **2016**, 23, 2325-2340		18
1576	Tissue specific response of Miscanthus giganteus to dilute acid pretreatment for enhancing cellulose digestibility. **2016**, 154, 247-56		26
1575	Bacterial cellulose-polyaniline nano-biocomposite: A porous media hydrogel bioanode enhancing the performance of microbial fuel cell. **2016**, 325, 322-328		82
1574	PLA/functionalized-gum arabic based bionanocomposite films for high gas barrier applications. **2016**, 133, n/a-n/a		28
1573	Mechanical fragmentation of corncob at different plant scales: Impact and mechanism on microstructure features and enzymatic hydrolysis. **2016**, 205, 159-65		64
1572	PLLA-grafted cellulose nanocrystals: Role of the CNC content and grafting on the PLA bionanocomposite film properties. **2016**, 142, 105-13		128
1571	A comprehensive approach for obtaining cellulose nanocrystal from coconut fiber. Part I: Proposition of technological pathways. **2016**, 93, 66-75		59
1570	Probing crystallinity of never-dried wood cellulose with Raman spectroscopy. **2016**, 23, 125-144		91
1569	Activated carbon production from the Guadua amplexifolia using a combination of physical and chemical activation. **2016**, 124, 1383-1398		17
1568	Cellulose Microfibril Formation by Surface-Tethered Cellulose Synthase Enzymes. **2016**, 10, 1896-907		21
1567	Influence of the maturation time on the physico-chemical properties of nanocellulose and associated constituents isolated from pseudostems of banana plant c.v. Valery. **2016**, 83, 551-560		17
1566	The influences of enzymatic processing on physico-chemical and pigment dyeing characteristics of cotton fabrics. **2016**, 23, 929-940		13
1565	Physical chemical morphological characterization of the whole sugarcane lignocellulosic biomass used for 2G ethanol production by spectroscopy and microscopy techniques. **2016**, 87, 607-617		58
1564	A critical review of analytical methods in pretreatment of lignocelluloses: Composition, imaging, and crystallinity. **2016**, 200, 1008-18		372

1563	Shape and size engineered cellulosic nanomaterials as broad spectrum anti-microbial compounds. **2016**, 87, 460-5	8
1562	Synergistic effect of white-rot fungi and alkaline pretreatments for improving enzymatic hydrolysis of poplar wood. **2016**, 86, 155-162	22
1561	Bench scale dilute acid pretreatment optimization for producing fermentable sugars from cotton stalk and physicochemical characterization. **2016**, 83, 104-112	28
1560	Comparison of sample crystallinity determination methods by X-ray diffraction for challenging cellulose I materials. **2016**, 23, 1073-1086	153
1559	Optimization of bacterial cellulose production by Gluconacetobacter xylinus using carob and haricot bean. **2016**, 90, 2-10	55
1558	Hydrophilicity improvement of mercerized bacterial cellulose films by polyethylene glycol graft. **2016**, 86, 599-605	21
1557	Comparison of dilute acid and alkali pretreatments in production of fermentable sugars from bamboo: Effect of Tween 80. **2016**, 83, 414-422	45
1556	Isolation of a wide range of minerals from a thermally treated plant: Equisetum arvense, a Mare's tale. **2016**, 21, 101-12	10
1555	Effect of acid pretreatment on different parts of corn stalk for second generation ethanol production. **2016**, 206, 86-92	101
1554	Selective hydrolysis of cellulose for the preparation of microcrystalline cellulose by phosphotungstic acid. **2016**, 23, 1199-1207	22
1553	Fourier-transform infrared spectroscopic analyses of cellulose from different bacterial cultivations using microspectroscopy and a high-throughput screening device. **2016**, 84, 53-57	4
1552	Concurrent Cellulose Hydrolysis and Esterification to Prepare a Surface-Modified Cellulose Nanocrystal Decorated with Carboxylic Acid Moieties. **2016**, 4, 1538-1550	116
1551	A flexible solid-state electrolyte for wide-scale integration of rechargeable zinc–air batteries. **2016**, 9, 663-670	194
1550	An environmentally friendly xylanase-assisted pretreatment for cellulose nanofibrils isolation from sugarcane bagasse by high-pressure homogenization. **2016**, 82, 149-160	102
1549	Morphological, physical, mechanical, chemical and thermal characterization of sustainable Indian Areca fruit husk fibers (Areca Catechu L.) as potential alternate for hazardous synthetic fibers. **2016** , 13, 156-165	95
1548	Impact of Ball-Milling Pretreatment on Pyrolysis Behavior and Kinetics of Crystalline Cellulose. **2016**, 7, 571-581	44
1547	Site-Selective Modification of Cellulose Nanocrystals with Isophorone Diisocyanate and Formation of Polyurethane-CNC Composites. **2016**, 8, 1458-67	90
1546	Production of nanocellulose fibers from pinecone biomass: Evaluation and optimization of chemical and mechanical treatment conditions on mechanical properties of nanocellulose films. **2016**, 83, 746-754	121

1545	Production of xylo-sugars from corncob by oxalic acid-assisted ball milling and microwave-induced hydrothermal treatments. **2016**, 79, 137-145	36
1544	Acid hydrolysis of cellulosic fibres: Comparison of bleached kraft pulp, dissolving pulps and cotton textile cellulose. **2016**, 136, 1281-7	42
1543	EPR spectroscopy applied to the study of the TEMPO mediated oxidation of nanocellulose. **2016**, 136, 744-9	20
1542	Structural investigation of cellulose nanocrystals extracted from chili leftover and their reinforcement in cariflex-IR rubber latex. **2016**, 136, 945-54	48
1541	Polysaccharide biopolymers modified with titanium or nickel nanoparticles for removal of radionuclides from aqueous solutions. **2016**, 307, 1303-1314	10
1540	Facile synthesis of cobalt ferrite nanotubes using bacterial nanocellulose as template. **2016**, 137, 726-731	35
1539	Surface modification of cellulose nanofibrils by maleated styrene block copolymer and their composite reinforcement application. **2016**, 23, 519-528	19
1538	Nanocomposites with functionalised polysaccharide nanocrystals through aqueous free radical polymerisation promoted by ozonolysis. **2016**, 135, 256-66	33
1537	Weighing the factors behind enzymatic hydrolyzability of pretreated lignocellulose. **2016**, 18, 1295-1305	97
1536	Liquid-core nanocellulose-shell capsules with tunable oxygen permeability. **2016**, 136, 292-9	35
1535	N-Bromosuccinimide (NBS) an efficient catalyst for acetylation of wood. **2016**, 70, 421-427	6
1534	Comparison between solid-state and powder-state alkali pretreatment on saccharification and fermentation for bioethanol production from rice straw. **2016**, 46, 229-37	1
1533	Characterization and mechanical properties investigation of the cellulose/gypsum composite. **2016**, 50, 657-672	31
1532	Structure property relationship of halloysite nanotubes/ethylene vinyl acetate carbon monoxide terpolymer nanocomposites. **2017**, 30, 121-140	12
1531	Recent developments in the production and applications of bacterial cellulose fibers and nanocrystals. **2017**, 37, 510-524	118
1530	Isolation of Nanocrystalline Cellulose: A Technological Route for Valorizing Recycled Tetra Pak Aseptic Multilayered Food Packaging Wastes. **2017**, 8, 41-56	24
1529	Effect of organoclay on the properties of maleic-anhydride grafted polypropylene and poly(methyl methacrylate) blend. **2017**, 38, 431-440	10
1528	Effect of mechanical treatment on morphology and thermal and mechanical properties of sugar cane bagasse low-density polyethylene composites. **2017**, 38, 1497-1503	6

1527	Isolation and surface modification of cellulose from underutilized Luffa cylindrica sponge: A potential feed stock for local polymer industry in AfricaPeer review under responsibility of University of Bahrain.View all notes. **2017**, 24, 39-45	4
1526	Macrofibers with High Mechanical Performance Based on Aligned Bacterial Cellulose Nanofibers. **2017**, 9, 20330-20339	93
1525	Impact of plant matrix polysaccharides on cellulose produced by surface-tethered cellulose synthases. **2017**, 162, 93-99	8
1524	Nanocellulose for biosorption of chlorpyrifos from water: chemometric optimization, kinetics and equilibrium. **2017**, 24, 1319-1332	50
1523	Characterization of combined organic□inorganic acid-pretreated cassava stem. **2017**, 14, 1291-1296	6
1522	Thermal degradation of urea-formaldehyde cellulose composites filled with aluminum particles: Kinetic approach to mechanisms. **2017**, 134,	2
1521	Morphological, mechanical, and in vitro cytocompatibility analysis of poly(vinyl alcohol)□silica glass hybrid scaffolds reinforced with cellulose nanocrystals. **2017**, 22, 139-151	6
1520	Crystallinity and surface state of cellulose in wet ball-milling process. **2017**, 134,	15
1519	Cellulose based grafted biosorbents - Journey from lignocellulose biomass to toxic metal ions sorption applications - A review. **2017**, 232, 62-93	118
1518	Composite fibers prepared from multi-walled carbon nanotubes/cellulose dispersed/dissolved in ammonium/dimethyl sulfoxide mixed solvent. **2017**, 7, 2186-2192	17
1517	Xylo-sugars production by microwave-induced hydrothermal treatment of corncob: Trace sodium hydroxide addition for suppression of side effects. **2017**, 101, 36-45	20
1516	Commercialization of Cellulose Nanofibril (CNF) and Cellulose Nanocrystal (CNC): Pathway and Challenges. **2017**, 761-797	4
1515	Novel hydroxyethyl chitosan/cellulose scaffolds with bubble-like porous structure for bone tissue engineering. **2017**, 167, 44-51	50
1514	A facile one-step way for extraction of nanocellulose with high yield by ball milling with ionic liquid. **2017**, 24, 2083-2093	64
1513	Preparation of nanocrystalline cellulose-montmorillonite composite via thermal radiation for liquid-phase adsorption. **2017**, 233, 29-37	14
1512	Solvent-based delignification and decrystallization of wheat straw for efficient enzymatic hydrolysis of cellulose and ethanol production with low cellulase loadings. **2017**, 7, 10609-10617	22
1511	Preparation and characterization of transparent cellulose films using an improved cellulose dissolution process. **2017**, 134,	37
1510	Mechanism of cassava tuber cell wall weakening by dilute sodium hydroxide steeping. **2017**, 228, 338-347	7

1509	Water in cellulose: evidence and identification of immobile and mobile adsorbed phases by H MAS NMR. **2017**, 19, 4360-4369	26
1508	Characterization of Various Kinds of Nanocellulose. **2017**, 51-100	18
1507	Spectroscopy Studies of Cellulose Nanofiber- and Cellulose Nanocrystal-Based Nanocomposites. **2017**, 581-608	1
1506	Biological pretreatment and bioconversion of agricultural wastes, using ligninolytic and cellulolytic fungal consortia. **2017**, 21, 89-99	15
1505	Enhanced dispersion and properties of a two-component epoxy nanocomposite using surface modified cellulose nanocrystals. **2017**, 112, 359-368	37
1504	Direct catalytic production of sorbitol from waste cellulosic materials. **2017**, 232, 152-158	25
1503	A cleaner and eco-friendly bioprocess for enhancing reducing sugar production from pineapple leaf waste. **2017**, 149, 387-395	37
1502	Aspartic acid grafting on cellulose and chitosan for enhanced Nd(III) sorption. **2017**, 113, 13-22	26
1501	Comparison of dry and wet milling pre-treatment methods for improving the anaerobic digestion performance of the Pennisetum hybrid. **2017**, 7, 12610-12619	15
1500	Tetramethylguanidine-based gels and colloids of cellulose. **2017**, 169, 58-64	6
1499	Recognizing ancient papyri by a combination of spectroscopic, diffractional and chromatographic analytical tools. **2017**, 7, 46236	11
1498	Nanostructured cellulose-xyloglucan blends via ionic liquid/water processing. **2017**, 168, 163-172	11
1497	Behavior of nanocelluloses at interfaces. **2017**, 29, 83-95	161
1496	Poly(propylene imine) dendrimer-grafted nanocrystalline cellulose: Doxorubicin loading and release behavior. **2017**, 117, 287-294	62
1495	Effects of high-speed homogenization and high-pressure homogenization on structure of tomato residue fibers. **2017**, 232, 443-449	45
1494	Sulfoethylated nanofibrillated cellulose: Production and properties. **2017**, 169, 515-523	24
1493	Polyaniline-modified nanocellulose prepared from Semantan bamboo by chemical polymerization: preparation and characterization. **2017**, 7, 25191-25198	40
1492	Within plant variation of distillers dried grains with solubles (DDGS) produced from multiple raw materials in varying proportions: Chemical composition and in vitro evaluation of feeding value for ruminants. **2017**, 229, 79-90	6

1491	On the subtle tuneability of cellulose hydrogels: implications for binding of biomolecules demonstrated for CBM 1. **2017**, 5, 3879-3887	22
1490	ATR-FTIR study of the interaction of CO 2 with bacterial cellulose-based membranes. **2017**, 324, 83-92	25
1489	Effect of sample moisture content on XRD-estimated cellulose crystallinity index and crystallite size. **2017**, 24, 1971-1984	73
1488	Conformations and Intermolecular Interactions in Cellulose/Silk Fibroin Blend Films: A Solid-State NMR Perspective. **2017**, 121, 6108-6116	38
1487	Selection strategy for indication of crosses between potential sugarcane genotypes aiming at the production of bioenergy. **2017**, 104, 62-67	6
1486	Preparation of multifunctional chitin nanowhiskers/ZnO-Ag NPs and their effect on the properties of carboxymethyl cellulose-based nanocomposite film. **2017**, 169, 467-479	56
1485	Kinetics of the thermal degradation mechanisms in urea-formaldehyde cellulose composites filled with zinc particles. **2017**, 28, 11832-11845	8
1484	Using a combined hydrolysis factor to balance enzymatic saccharification and the structural characteristics of lignin during pretreatment of Hybrid poplar with a fully recyclable solid acid. **2017** , 238, 575-581	22
1483	Cationic cellulosic derivatives as flocculants in papermaking. **2017**, 24, 3015-3027	20
1482	Estimation of cellulose crystallinity of sugarcane biomass using near infrared spectroscopy and multivariate analysis methods. **2017**, 158, 20-28	35
1481	Office waste paper as cellulose nanocrystal source. **2017**, 134, 45257	38
1480	Engineering and Characterization of Bacterial Nanocellulose Films as Low Cost and Flexible Sensor Material. **2017**, 9, 19048-19056	77
1479	Lignocellulosic biomass pyrolysis mechanism: A state-of-the-art review. **2017**, 62, 33-86	1182
1478	The impact of ethylene glycol and hydrogen sulphide on the performance of cellulose triacetate membranes in natural gas sweetening. **2017**, 539, 432-440	19
1477	Chemical and Biological Pretreatments on Sugarcane Bagasse to Enhance its Enzymatic Hydrolysis.. **2017**, 2, 4213-4218	4
1476	A comparative study of the suitability of different cereal straws for lignocellulose nanofibers isolation. **2017**, 103, 990-999	40
1475	Quantitative approaches for illustrating correlations among the mechanical fragmentation scales, crystallinity and enzymatic hydrolysis glucose yield of rice straw. **2017**, 241, 262-268	25
1474	Study on structure and morphology (Boehmeria nivea) in the irregular and regular parts of the fiber after biodegumming. **2017**, 65, 012043	2

1473	Heat release at the wetting front during capillary filling of cellulosic micro-substrates. **2017**, 504, 751-757	10
1472	Pretreatment assisted synthesis and characterization of cellulose nanocrystals and cellulose nanofibers from absorbent cotton. **2017**, 102, 248-257	32
1471	Hydrolysis Kinetics and Structure Changes of Wood Meal in Subcritical Water. **2017**, 5, 3544-3552	11
1470	Lignocellulases: a review of emerging and developing enzymes, systems, and practices. **2017**, 4,	90
1469	Microstructure Contributions to Vibrational Damping and Identification of Damage Mechanisms in Arundo Donax L: Reed Cane for Woodwind Instruments. **2017**, 2, 1869-1888	2
1468	Production of bio-sugar and bioethanol from coffee residue (CR) by acid-chlorite pretreatment. **2017**, 236, 194-201	15
1467	A versatile method for the surface tailoring of cellulose nanocrystal building blocks by acylation with functional vinyl esters. **2017**, 169, 189-197	44
1466	Isolation of cellulose nanocrystals from medium density fiberboards. **2017**, 167, 70-78	31
1465	Evaluating the heat transfer phenomena and the interfacial thermal resistance of mold flux using a copper disc mold simulator. **2017**, 109, 1014-1025	12
1464	Hydrolysis of Lignocellulosic Biomass for Recovering Hemicellulose: State of the Art. **2017**, 73-106	1
1463	Extraction and characterization of cellulose nanocrystals from post-consumer wood fiberboard waste. **2017**, 24, 2125-2137	26
1462	Antifungal treatment of paper with calcium propionate and parabens: Short-term and long-term effects. **2017**, 120, 203-215	14
1461	Benchmarking Cellulose Nanocrystals: From the Laboratory to Industrial Production. **2017**, 33, 1583-1598	276
1460	Electronic paper from facile, two-step deposition of CuS. **2017**, 24, 1069-1075	2
1459	Engineering the N-terminal end of CelA results in improved performance and growth of Caldicellulosiruptor bescii on crystalline cellulose. **2017**, 114, 945-950	22
1458	Impact of pre-treatments on properties of lignocelluloses and their accessibility for a subsequent carboxymethylation. **2017**, 161, 82-89	6
1457	Formosolv fractionation of hemp hurds. **2017**, 97, 252-259	16
1456	The effect of side-chain length of cellulose fatty acid esters on their thermal, barrier and mechanical properties. **2017**, 24, 505-517	29

1455	Synergetic Role of Hypromellose and Methacrylic Acid Copolymer in the Dissolution Improvement of Amorphous Solid Dispersions. **2017**, 106, 1042-1050	30
1454	Mild Oxalic-Acid-Catalyzed Hydrolysis as a Novel Approach to Prepare Cellulose Nanocrystals. **2017**, 3, 109-119	28
1453	Cellulose Biorefinery Based on a Combined Catalytic and Biotechnological Approach for Production of 5-HMF and Ethanol. **2017**, 10, 562-574	23
1452	Cellulose nanocrystals as templates for cetyltrimethylammonium bromide mediated synthesis of Ag nanoparticles and their novel use in PLA films. **2017**, 157, 1557-1567	33
1451	Noncatalyzed Liquefaction of Celluloses in Hydrothermal Conditions: Influence of Reactant Physicochemical Characteristics and Modeling Studies. **2017**, 56, 126-134	5
1450	Enhancing saccharification of cassava stems by starch hydrolysis prior to pretreatment. **2017**, 97, 21-31	38
1449	Enhancement of mechanical and electrical performances of insulating presspaper by introduction of nanocellulose. **2017**, 138, 40-48	35
1448	From rotten grapes to industrial exploitation: Komagataeibacter europaeus SGP37, a micro-factory for macroscale production of bacterial nanocellulose. **2017**, 96, 52-60	27
1447	Physiochemical and biological characterization of novel exopolysaccharide produced by Bacillus tequilensis FR9 isolated from chicken. **2017**, 96, 1-10	47
1446	Towards an Understanding of Cellulose Microfibril Dimensions from TEMPO-Oxidized Pulp Fiber. **2017**, 55-73	
1445	Insights of biomass recalcitrance in natural Populus trichocarpa variants for biomass conversion. **2017**, 19, 5467-5478	51
1444	Bacterial Cellulose Ionogels as Chemosensory Supports. **2017**, 9, 38042-38051	23
1443	Multi-Purpose Cellulosic Ionogels. **2017**, 143-155	3
1442	Catalytic Conversion of Structural Carbohydrates and Lignin to Chemicals. **2017**, 60, 59-123	36
1441	Enhanced ethanol production from Glycyrrhiza glabra residue by fungus Mucor hiemalis. **2017**, 108, 767-774	4
1440	Toughening mechanisms in cellulose nanopaper: the contribution of amorphous regions. **2017**, 24, 4627-4639	19
1439	Mixtures of ionic liquids as more efficient media for cellulose dissolution. **2017**, 178, 277-285	42
1438	Characterization Methods and Techniques. **2017**, 107-140	1

1437	The chemical-free production of nanocelluloses from microcrystalline cellulose and their use as Pickering emulsion stabilizer. **2017**, 178, 48-56	47
1436	The influences of added polysaccharides on the properties of bacterial crystalline nanocellulose. **2017**, 9, 15144-15158	34
1435	The Multi Domain Caldicellulosiruptor bescii CelA Cellulase Excels at the Hydrolysis of Crystalline Cellulose. **2017**, 7, 9622	35
1434	A strategy for generating high-quality cellulose and lignin simultaneously from woody biomass. **2017**, 19, 4849-4857	53
1433	Influence of lignocellulose thermal pretreatment on the composition of condensable products obtained from char devolatilization by means of thermogravimetric analysis□thermal desorption/gas chromatography□mass spectrometry. **2017**, 127, 99-108	7
1432	Dominant effects of organic carbon chemistry on decomposition dynamics of crop residues in a Mollisol. **2017**, 115, 221-232	44
1431	Isolation of cellulose-II nanospheres from flax stems and their physical and morphological properties. **2017**, 178, 352-359	27
1430	Synergistic maximization of the carbohydrate output and lignin processability by combinatorial pretreatment. **2017**, 19, 4939-4955	76
1429	Kinetics of cell growth and crystalline nanocellulose production by Komagataeibacter xylinus. **2017**, 127, 21-31	21
1428	Effect of oxidation time on the properties of cellulose nanocrystals from hybrid poplar residues using the ammonium persulfate. **2017**, 174, 291-298	31
1427	The promotional effect of water-soluble extractives on the enzymatic cellulose hydrolysis of pretreated wheat straw. **2017**, 243, 994-999	14
1426	Effect of in Vivo Deuteration on Structure of Switchgrass Lignin. **2017**, 5, 8004-8010	7
1425	Challenges of non-flocculating Saccharomyces cerevisiae haploid strain against inhibitory chemical complex for ethanol production. **2017**, 245, 1436-1446	10
1424	Green catalytic valorization of hardwood biomass into valuable chemicals with the use of solid catalysts. **2017**, 51, 1189-1208	8
1423	Thermally Induced Microstructural Transformations of Fe72Si15B8V4Cu1 Alloy. **2017**, 48, 4393-4402	1
1422	Facile production of seaweed-based biomaterials with antioxidant and anti-inflammatory activities. **2017**, 27, 1-11	21
1421	Effect of oxidized chitin nanocrystals isolated by ammonium persulfate method on the properties of carboxymethyl cellulose-based films. **2017**, 175, 712-720	36
1420	Nanoemulsions and Nanolatexes Stabilized by Hydrophobically Functionalized Cellulose Nanocrystals. **2017**, 50, 6032-6042	58

1419	Exploring surface characterization and electrostatic property of Hybrid Pennisetum during alkaline sulfite pretreatment for enhanced enzymatic hydrolysability. **2017**, 244, 1166-1172	31
1418	High-strength regenerated cellulose fibers spun from 1-butyl-3-methylimidazolium chloride solutions. **2017**, 134, 45551	7
1417	Effect of particle size and crystallinity of cellulose filler on the properties of poly(L-lactic acid): Mechanical property and thermal stability. **2017**,	1
1416	Switchable ionic liquids enable efficient nanofibrillation of wood pulp. **2017**, 24, 3265-3279	20
1415	Conversion of various types of lignocellulosic biomass to fermentable sugars using kraft pulping and enzymatic hydrolysis. **2017**, 51, 873-885	34
1414	Precisely controlled two-step synthesis of cellulose- graft -poly(l -lactide) copolymers: Effects of graft chain length on thermal behavior. **2017**, 142, 226-233	13
1413	Isolation and characterization of cellulose nanoplatelets from the parenchyma cells of Agave salmiana. **2017**, 24, 3741-3752	12
1412	A Simple Approach to Prepare Carboxycellulose Nanofibers from Untreated Biomass. **2017**, 18, 2333-2342	92
1411	Characterization of carboxymethyl cellulose-based nanocomposite films reinforced with oxidized nanocellulose isolated using ammonium persulfate method. **2017**, 174, 484-492	77
1410	Exploring crystalline structural variations of cellulose during pulp beating of tobacco stems. **2017**, 174, 146-153	24
1409	Green synthesis of novel biocomposites from treated cellulosic fibers and recycled bio-plastic polylactic acid. **2017**, 164, 575-586	48
1408	Extraction and characterization of cellulose nanowhiskers from Mandacaru (Cereus jamacaru DC.) spines. **2017**, 24, 119-129	21
1407	Processing Pine Wood into Vanillin and Glucose by Sequential Catalytic Oxidation and Enzymatic Hydrolysis. **2017**, 37, 43-51	30
1406	Simple citric acid-catalyzed surface esterification of cellulose nanocrystals. **2017**, 157, 1358-1364	63
1405	Facile production of nanostructured cellulose from Elaeis guineensis empty fruit bunch via one pot oxidative-hydrolysis isolation approach. **2017**, 157, 1511-1524	28
1404	Laccase induction by synthetic dyes in Pycnoporus sanguineus and their possible use for sugar cane bagasse delignification. **2017**, 101, 1189-1201	20
1403	The short-term degradation of cellulosic pulp in lake water and peat soil: A multi-analytical study from the micro to the molecular level. **2017**, 116, 243-259	29
1402	Exploring crystalline-structural variations of cellulose during alkaline pretreatment for enhanced enzymatic hydrolysis. **2017**, 224, 611-617	66

1401	Kinetic studies and optimization of abies wood fractionation by hydrogen peroxide under mild conditions with TiO2 catalyst. **2017**, 120, 81-94		11
1400	Isolation and Characterization of Nanocrystalline Cellulose from Totally Chlorine Free Oil Palm Empty Fruit Bunch Pulp. **2017**, 25, 192-202		33
1399	Chloride salt of conducting polyaniline synthesized in the presence of CeO2: Structural analysis of the core-shell nanocomposite. **2017**, 1127, 337-344		11
1398	Miscanthus Giganteus: A commercially viable sustainable source of cellulose nanocrystals. **2017**, 155, 230-241		60
1397	Productive Chain of Biofuels and Industrial Biocatalysis. **2017**, 545-581		2
1396	Properties of alginate-based films reinforced with cellulose fibers and cellulose nanowhiskers isolated from mulberry pulp. **2017**, 63, 201-208		90
1395	Extraction of polysaccharides by autohydrolysis of spent coffee grounds and evaluation of their antioxidant activity. **2017**, 157, 258-266		78
1394	Wood Polypropylene (PP) Composites Manufactured by Mango Wood Waste with Virgin or Recycled PP: Mechanical, Morphology, Melt Flow Index and Crystalline Behaviour. **2017**, 25, 640-648		21
1393	Alginate/bacterial cellulose nanocomposite beads prepared using Gluconacetobacter xylinus and their application in lipase immobilization. **2017**, 157, 137-145		56
1392	Monitoring molecular dynamics of bacterial cellulose composites reinforced with graphene oxide by carboxymethyl cellulose addition. **2017**, 157, 353-360		21
1391	Chemical treatment and characterization of soybean straw and soybean protein isolate/straw composite films. **2017**, 157, 512-520		56
1390	Enhancements in crystallinity, thermal stability, tensile modulus and strength of sisal fibres and their PP composites induced by the synergistic effects of alkali and high intensity ultrasound (HIU) treatments. **2017**, 34, 729-742		60
1389	Synthesis and characterization of poly(carboxymethyl)-cellulose for enhanced La(III) sorption. **2017**, 157, 1809-1820		35
1388	Dynamic changes of substrate reactivity and enzyme adsorption on partially hydrolyzed cellulose. **2017**, 114, 503-515		20
1387	Deconstruction of corncob by steam explosion pretreatment: Correlations between sugar conversion and recalcitrant structures. **2017**, 156, 351-356		41
1386	Extraction of xylem fibers from Musa sapientum and characterization. **2017**, 18, 2225-2234		8
1385	Cationized fibers from pine kraft pulp: advantages of refining before functionalization. **2017**, 71, 843-851		2
1384	The TcEG1 beetle () cellulase produced in transgenic switchgrass is active at alkaline pH and auto-hydrolyzes biomass for increased cellobiose release. *Biotechnology for Biofuels*, **2017**, 10, 230	7.8	5

1383	Ultra-Fast Microwave Synthesis of ZnO Nanorods on Cellulose Substrates for UV Sensor Applications. **2017**, 10,		52
1382	Bacterial Nanocellulose from Side-Streams of Kombucha Beverages Production: Preparation and Physical-Chemical Properties. **2017**, 9,		51
1381	Synthesis and applications of cellulose nanohybrid materials. **2017**, 289-320		4
1380	Easy Fabrication of Highly Thermal-Stable Cellulose Nanocrystals Using Cr(NO)Catalytic Hydrolysis System: A Feasibility Study from Macro- to Nano-Dimensions. **2017**, 10,		33
1379	In-Depth Analysis of the Structure and Properties of Two Varieties of Natural Luffa Sponge Fibers. **2017**, 10,		34
1378	Chemical Treatment of Waste Abaca for Natural Fiber-Reinforced Geopolymer Composite. **2017**, 10,		47
1377	Hydrogels for Biomedical Applications: Cellulose, Chitosan, and Protein/Peptide Derivatives. **2017**, 3,		99
1376	Characterization of Nanocellulose. **2017**, 83-90		
1375	Bacterial cellulose. **2017**, 327-340		2
1374	Implications of Non-Equilibrium States and Glass Transitions in Fried Foods. **2017**, 209-239		0
1373	Development of Green Geopolymer Using Agricultural and Industrial Waste Materials with High Water Absorbency. **2017**, 7, 514		33
1372	Cellulose with a High Fractal Dimension Is Easily Hydrolysable under Acid Catalysis. **2017**, 7, 162		5
1371	Enhancing Insulating Performances of Presspaper by Introduction of Nanofibrillated Cellulose. **2017**, 10, 681		8
1370	Silicone Doped Chitosan-Acrylamide Coencapsulated Urea Fertilizer: An Approach to Controlled Release Fertilizers. **2017**, 2017, 1-7		8
1369	a new platform organism for conversion of lignocellulose into terpene biofuels and bioproducts. *Biotechnology for Biofuels*, **2017**, 10, 241	7.8	93
1368	Visualizing chemical functionality in plant cell walls. *Biotechnology for Biofuels*, **2017**, 10, 263	7.8	57
1367	Enhanced rates of enzymatic saccharification and catalytic synthesis of biofuel substrates in gelatinized cellulose generated by trifluoroacetic acid. *Biotechnology for Biofuels*, **2017**, 10, 310	7.8	20
1366	Comparing the physiochemical parameters of three celluloses reveals new insights into substrate suitability for fungal enzyme production. **2017**, 4, 10		7

1365	Unraveling variations of crystalline cellulose induced by ionic liquid and their effects on enzymatic hydrolysis. **2017**, 7, 10230	63
1364	Isolation and Characterization of Cellulose from Different Fruit and Vegetable Pomaces. **2017**, 9,	112
1363	Application masking liquid technique for SAXS study of natural bio-nanocomposites. **2017**, 848, 012025	2
1362	Statistical modelling and optimization of alkaline peroxide oxidation pretreatment process on rice husk cellulosic biomass to enhance enzymatic convertibility and fermentation to ethanol. **2018**, 25, 2487-2504	18
1361	Biogenic porous silica and silicon sourced from Mexican Giant Horsetail (Equisetum myriochaetum) and their application as supports for enzyme immobilization. **2018**, 166, 195-202	20
1360	New cellulose crystallinity estimation method that differentiates between organized and crystalline phases. **2018**, 190, 262-270	42
1359	Direct conversion of cellulose to sorbitol via an enhanced pretreatment with ionic liquids. **2018**, 93, 2617-2624	14
1358	Bio-ethanol production from waste biomass of phytoremediator: an eco-friendly strategy for renewable energy. **2018**, 8, 158	13
1357	Slow Pyrolysis Kinetics of Two Herbaceous Feedstock: Effect of Milling, Source, and Heating Rate. **2018**, 57, 3821-3832	5
1356	Novel method for holocellulose analysis of non-woody biomass wastes. **2018**, 189, 250-256	24
1355	Materials chemistry and the futurist eco-friendly applications of nanocellulose: Status and prospect. **2018**, 22, 949-978	158
1354	Stress transfer and matrix-cohesive fracture mechanism in microfibrillated cellulose-gelatin nanocomposite films. **2018**, 195, 89-98	21
1353	Optimization of dilute acetic acid pretreatment of mixed fruit waste for increased methane production. **2018**, 190, 411-421	41
1352	Nanocellulose as a natural source for groundbreaking applications in materials science: Today's state. **2018**, 21, 720-748	419
1351	Hydrothermal pretreatment for deconstruction of plant cell wall: Part II. Effect on cellulose structure and bioconversion. **2018**, 64, 1954-1964	9
1350	Current characterization methods for cellulose nanomaterials. **2018**, 47, 2609-2679	436
1349	Depolymerization of Cellulose with Superheated Steam: Remarkable Obstruction Effects of Sodium and High Reactivity of Crystalline Cellulose. **2018**, 6, 6570-6576	7
1348	Kinetic Study and Optimization of Catalytic Peroxide Delignification of Aspen Wood. **2018**, 59, 48-57	2

1347	Microcrystalline cellulose (MCC) analysis and quantitative phase analysis of ciprofloxacin/MCC mixtures by Rietveld XRD refinement with physically based background. **2018**, 25, 2795-2815	5
1346	Extraction of cellulose microcrystalline from galam wood for biopolymer. **2018**,	3
1345	Multiscale analysis of bamboo deformation mechanisms following NaOH treatment using X-ray and correlative microscopy. **2018**, 72, 329-341	11
1344	PVBA-UiO-66 using a flexible PVBA with multi-coordination groups as mixed ligands and their super adsorption towards methylene blue. **2018**, 47, 6538-6548	10
1343	Recent advances in understanding the pseudo-lignin formation in a lignocellulosic biorefinery. **2018** , 20, 2192-2205	177
1342	Thermal conversion of mechanically activated mixtures of aspen wood-zeolite catalysts in a supercritical ethanol. **2018**, 132, 237-244	6
1341	Hydrolysis kinetics and mechanism of chitin in subcritical water. **2018**, 135, 254-262	10
1340	Extraction of cellulose nanofibrils from amylase-treated cassava bagasse using high-pressure homogenization. **2018**, 25, 1757-1768	18
1339	Cellulose fiber size defines efficiency of enzymatic hydrolysis and impacts degree of synergy between endo- and exoglucanases. **2018**, 25, 1865-1881	7
1338	Effects of Natural Additives on the Properties of Sawdust Fuel Pellets. **2018**, 32, 1863-1873	18
1337	Preparation of cellulose nanocrystals from empty fruit bunch of palm oil by using phosphotungstic acid. **2018**, 105, 012063	10
1336	Structural Characterization of Loblolly Pine Derived Biochar by X-ray Diffraction and Electron Energy Loss Spectroscopy. **2018**, 6, 2621-2629	39
1335	Comparison and validation of Fourier transform infrared spectroscopic methods for monitoring secondary cell wall cellulose from cotton fibers. **2018**, 25, 49-64	17
1334	Nanocrystals of cellulose allomorphs have different adsorption of cellulase and subsequent degradation. **2018**, 112, 541-549	28
1333	Urethane-Linked Imidazole-Cellulose Microcrystals: Synthesis and Their Dual Functions in Adsorption and Naked Eye Sensing with Colorimetric Enhancement of Metal Ions. **2018**, 6, 3686-3695	14
1332	Advances in thermosensitive polymer-grafted platforms for biomedical applications. **2018**, 92, 1016-1030	41
1331	Chemical and structural factors influencing enzymatic saccharification of wood from aspen, birch and spruce. **2018**, 109, 125-134	39
1330	Nanocellulose films with combined cellulose nanofibers and nanocrystals: tailored thermal, optical and mechanical properties. **2018**, 25, 1103-1115	57

1329	Cationic fibers from crop residues: Making waste more appealing for papermaking. **2018**, 174, 1503-1512	4
1328	Reactive dyeing of ramie yarn washed by liquid ammonia. **2018**, 25, 1463-1481	4
1327	Effect of pretreatments on isolation of bioactive polysaccharides from spent coffee grounds using subcritical water. **2018**, 109, 711-719	35
1326	Comparative study of cellulosic components isolated from different Eucalyptus species. **2018**, 25, 1011-1029	50
1325	Structural and compositional changes in sugarcane bagasse subjected to hydrothermal and organosolv pretreatments and their impacts on enzymatic hydrolysis. **2018**, 113, 64-74	63
1324	Structural and optical properties improvements of PVP/gelatin blends induced by neutron irradiation. **2018**, 146, 47-54	3
1323	Microwave-assisted ionic liquid-mediated rapid catalytic conversion of non-edible lignocellulosic Sunn hemp fibres to biofuels. **2018**, 253, 85-93	23
1322	Jute cellulose nano-fibrils/hydroxypropylmethylcellulose nanocomposite: A novel material with potential for application in packaging and transdermal drug delivery system. **2018**, 112, 633-643	58
1321	Characterization of Lignin Streams during Bionic Liquid-Based Pretreatment from Grass, Hardwood, and Softwood. **2018**, 6, 3079-3090	56
1320	Deterioration effects of wet environments and brown rot fungus Coniophora puteana on pine wood in the archaeological site of Biskupin (Poland). **2018**, 138, 132-146	17
1319	Structure of native cellulose microfibrils, the starting point for nanocellulose manufacture. **2018**, 376,	62
1318	Reuse of Selected Lignocellulosic and Processed Biomasses as Sustainable Sources for the Fabrication of Nanocellulose via Ni(II)-Catalyzed Hydrolysis Approach: A Comparative Study. **2018**, 26, 2825-2844	13
1317	Production of cellulose nanoparticles from blue agave waste treated with environmentally friendly processes. **2018**, 183, 294-302	51
1316	The effect of organosolv pretreatment on optimization of hydrolysis process to produce the reducing sugar. **2018**, 154, 01022	4
1315	Chemical composition of processed bamboo for structural applications. **2018**, 25, 3255-3266	34
1314	The Effect of Alkaline Concentration on Coconut Husk Crystallinity and the Yield of Sugars Released. **2018**, 306, 012046	1
1313	A design optimization study on synthesized nanocrystalline cellulose, evaluation and surface modification as a potential biomaterial for prospective biomedical applications. **2018**, 114, 536-546	25
1312	Isolation of oxidized nanocellulose from rice straw using the ammonium persulfate method. **2018**, 25, 2143-2149	25

1311	Covalent Tethering of Temperature Responsive pNIPAm onto TEMPO-Oxidized Cellulose Nanofibrils via Three-Component Passerini Reaction. **2018**, 7, 412-418	26
1310	On the Yield of Levoglucosan from Cellulose Pyrolysis. **2018**, 6, 7017-7025	56
1309	Phosphorus removal from eutrophic water using modified biochar. **2018**, 633, 825-835	64
1308	Cellulose and chitin composite materials from an ionic liquid and a green co-solvent. **2018**, 192, 159-165	24
1307	Mild chemical pretreatments are sufficient for bioethanol production in transgenic rice straws overproducing glucosidase. **2018**, 20, 2047-2056	54
1306	Thermal stability of cellulose nanocrystals prepared by succinic anhydride assisted hydrolysis. **2018**, 663, 145-156	20
1305	XRD and solid state C-NMR evaluation of the crystallinity enhancement of C-labeled bacterial cellulose biosynthesized by Komagataeibacter xylinus under different stimuli: A comparative strategy of analyses. **2018**, 461, 51-59	26
1304	2D and 3D Spectrum Graphics of the Chemical-Morphological Domains of Complex Biomass by Low Field Proton NMR Energy Relaxation Signal Analysis. **2018**, 32, 5090-5102	15
1303	Elucidating the Interactive Impacts of Substrate-Related Properties on Lignocellulosic Biomass Digestibility: A Sequential Analysis. **2018**, 6, 6783-6791	13
1302	Physical Properties, Microstructure, Intermolecular Forces, and Oxidation Stability of Soybean Oil Oleogels Structured by Different Cellulose Ethers. **2018**, 120, 1700287	23
1301	Effects of alkali treatment on the poly(furfuryl) alcohol□lax fibre composites. **2018**, 31, 48-60	8
1300	Effect of an enzymatic treatment with cellulase and mannanase on the structural properties of Nannochloropsis microalgae. **2018**, 249, 592-598	44
1299	Exploring an oxidative bleaching treatment for Chilean bamboo: a source of cellulose for biofuel generation and the nanotech industry. **2018**, 76, 1009-1019	1
1298	Water resistant nanopapers prepared by lactic acid modified cellulose nanofibers. **2018**, 25, 259-268	39
1297	Co-production of oligosaccharides and fermentable sugar from wheat straw by hydrothermal pretreatment combined with alkaline ethanol extraction. **2018**, 111, 78-85	55
1296	Post-sulfonation of cellulose nanofibrils with a one-step reaction to improve dispersibility. **2018**, 181, 247-255	32
1295	Ferromagnetic iron oxide□ellulose nanocomposites prepared by ultrasonication. **2018**, 9, 860-868	24
1294	Effect of Extraction Methods on the Properties of Althea Officinalis L. Fibers. **2018**, 15, 325-336	16

1293	Valorization of lignocellulosic fibres of paper waste into levulinic acid using solid and aqueous Brønsted acid. **2018**, 247, 387-394	48
1292	Sulfates of Sorghum vinegar residue waste as potential catalysts. **2018**, 7, 334-343	1
1291	Combined approaches to obtain cellulose nanocrystals, nanofibrils and fermentable sugars from elephant grass. **2018**, 180, 38-45	30
1290	Characterization and mechanical properties of ultraviolet stimuli-responsive functionalized cellulose nanocrystal alginate composites. **2018**, 135, 45857	10
1289	Surface functionalization of cellulose with poly(3-hexylthiophene) via novel oxidative polymerization. **2018**, 179, 221-227	21
1288	Combined effect of cellulose nanocrystals and poly(butylene succinate) on poly(lactic acid) crystallization: The role of interfacial affinity. **2018**, 179, 79-85	21
1287	New spherical nanocellulose and thiol-based adsorbent for rapid and selective removal of mercuric ions. **2018**, 331, 587-596	80
1286	Carboxymethyl cellulose with tailored degree of substitution obtained from bacterial cellulose. **2018**, 75, 147-156	50
1285	Fabrication and characterization of chitin nanofibers through esterification and ultrasound treatment. **2018**, 180, 81-87	39
1284	Production of cellulose carbamate using urea-based deep eutectic solvents. **2018**, 25, 195-204	32
1283	Structural features influential to enzymatic hydrolysis of cellulose-solvent-based pretreated pinewood and elmwood for ethanol production. **2018**, 41, 249-264	14
1282	Physical and mechanical properties of a vegetable oil based nanocomposite. **2018**, 98, 116-124	14
1281	Millisecond Self-Assembly of Stable Nanodispersed Drug Formulations. **2018**, 15, 495-507	2
1280	Green catalytic processing of native and organosolv lignins. **2018**, 309, 18-30	14
1279	Rosin modified cellulose nanofiber as a reinforcing and co-antimicrobial agents in polylactic acid /chitosan composite film for food packaging. **2018**, 183, 102-109	129
1278	Integration of peroxide delignification and sulfamic acid sulfation methods for obtaining cellulose sulfates from aspen wood. **2018**, 76, 999-1007	8
1277	Elucidation of mechanism involved in adsorption of Pb(II) onto lobeira fruit (Solanum lycocarpum) using Langmuir, Freundlich and Temkin isotherms. **2018**, 137, 348-354	209
1276	Decomposition of Cellulose in Hot-Compressed Water: Detailed Analysis of the Products and Effect of Operating Conditions. **2018**, 32, 4127-4138	19

1275	Study of humidity-responsive behavior in chiral nematic cellulose nanocrystal films for colorimetric response. **2018**, 25, 305-317	22
1274	Characterization of a novel exopolysaccharide produced by Lactobacillus gasseri FR4 and demonstration of its in vitro biological properties. **2018**, 109, 772-783	57
1273	Water-Based Approach to High-Strength All-Cellulose Material with Optical Transparency. **2018**, 6, 501-510	16
1272	A comparison of Canthaxanthine Pickering emulsions, stabilized with cellulose nanocrystals of different origins. **2018**, 106, 489-497	20
1271	Deinkability of different secondary fibers by enzymes. **2018**, 33, 12-20	4
1270	Fabrication of Silver Nanoparticles Using High-Pressure Wet-Type Jet Mill. **2018**, 59, 1483-1486	3
1269	The structural modification of cassava starch using a saline water pretreatment. **2018**, 38, 215-220	5
1268	Optimizing Single-Stage Processes of Microcrystalline Cellulose Production via the Peroxide Delignification of Wood in the Presence of a Titania Catalyst. **2018**, 10, 360-367	4
1267	Inhibition of Hornification of Eucalyptus Kraft Pulp by Acetylation. **2018**, 170, 052023	1
1266	Sample Preparation and Quantitative Analysis for Powder X-Ray Diffractometry. **2018**, 1-19	1
1265	The Effect of Compression Force on Alteration of Desloratadine and its Multicomponent Crystal Crystallinities Using X-Ray Diffraction and ATR-FTIR Techniques. **2018**, 787, 43-51	1
1264	Cellulose. **2018**, 1-69	9
1263	A novel method for characterizing temperature-dependent elastic modulus and glass transition temperature by processing the images of bending cantilever slender beams at different temperatures. **2018**, 8, 115201	3
1262	Spinning Cellulose Hollow Fibers Using 1-Ethyl-3-methylimidazolium Acetate?Dimethylsulfoxide Co-Solvent. **2018**, 10,	12
1261	Improvement of Mechanical Properties of Pineapple Leaf Fibers by Mercerization Process. **2018**, 19, 2604-2611	12
1260	Cotton Fiber Structure. **2018**, 13-39	7
1259	Chemical Properties of Cotton Fiber and Chemical Modification. **2018**, 95-115	
1258	Surface-Chemistry-Tuned Cellulose Nanocrystals in a Bentonite Suspension for Water-Based Drilling Fluids. **2018**, 1, 7039-7051	41

1257	Achieving Enhanced Interfacial Adhesion and Dispersion in Cellulose Nanocomposites via Amorphous Interfaces. **2018**, 51, 10304-10311		39
1256	Chemical Composition and Characterization of Cotton Fibers. **2018**, 75-94		4
1255	Controlled Depolymerization of Cellulose Fibres Isolated from Lignocellulosic Biomass Wastes. **2018**, 2018, 1-11		2
1254	Novel Bionanocellulose/Carrageenan Composites for Tissue Engineering. **2018**, 8, 1352		11
1253	Determination of polymorphic changes in cellulose from Eucalyptus spp. fibres after alkalization. **2018**, 25, 6831-6845		23
1252	One-pot preparation of bi-functional cellulose nanofibrils. **2018**, 25, 7031-7042		5
1251	The Crystallinity of Nanocellulose: Dispersion-Induced Disordering of the Grain Boundary in Biologically Structured Cellulose. **2018**, 1, 5774-5785		57
1250	DICAT-2: Solid Acid Catalyst with a Protagonist Backbone for Microwave Assisted Synthesis of 5-Hydroxymethylfurfural in Isopropyl Alcohol. **2018**, 57, 14428-14439		8
1249	Benefits of Renewable Hydrogels over Acrylate- and Acrylamide-Based Hydrogels. **2018**, 1-47		1
1248	Protic ionic liquids as effective agents for pretreatment of cotton stalks at high biomass loading. **2018**, 125, 588-595		33
1247	Toward an understanding of the increase in enzymatic hydrolysis by mechanical refining. *Biotechnology for Biofuels*, **2018**, 11, 289	7.8	24
1246	Hydrolysis of untreated lignocellulosic feedstock is independent of S-lignin composition in newly classified anaerobic fungal isolate, sp. UH3-1. *Biotechnology for Biofuels*, **2018**, 11, 293	7.8	7
1245	Ultrasonic Irradiation Coupled with Microwave Treatment for Eco-friendly Process of Isolating Bacterial Cellulose Nanocrystals. **2018**, 8,		14
1244	Grown Ultrathin Bacterial Cellulose Mats for Optical Applications. **2018**, 19, 4576-4584		7
1243	Production of bacterial cellulose from Komagataeibacter saccharivorans strain BC1 isolated from rotten green grapes. **2018**, 48, 842-852		14
1242	Upgrading Traditional Pulp Mill into Biorefinery Platform: Wheat Straw as a Feedstock. **2018**, 6, 15284-15291		5
1241	Organic-Inorganic Hybrid Thin Films Fabricated by Layer-by-Layer Assembly of the Phosphorylated Cellulose Nanocrystal and Imogolite Nanotubes. **2018**, 34, 13361-13367		14
1240	Three Way Comparison of Hydrophilic Ionic Liquid, Hydrophobic Ionic Liquid, and Dilute Acid for the Pretreatment of Herbaceous and Woody Biomass. **2018**, 6,		10

1239	Interactions between callose and cellulose revealed through the analysis of biopolymer mixtures. **2018**, 9, 4538		29
1238	Fabrication of Cellulose Acetate/Cellulose-HA Composite Films for Bone Fixation. **2018**, 778, 325-330		1
1237	Substrate Factors that Influence Cellulase Accessibility and Catalytic Activity During the Enzymatic Hydrolysis of Lignocellulosic Biomass. **2018**, 239-256		2
1236	Polymeric membrane gas separation performance improvements through supercritical CO2 treatment. **2018**, 566, 239-248		10
1235	Hydrothermal Solubilization–Hydrolysis–Dehydration of Cellulose to Glucose and 5-Hydroxymethylfurfural Over Solid Acid Carbon Catalysts. **2018**, 61, 1912-1927		27
1234	Basic Dye Removal with Sorption onto Low-Cost Natural Textile Fibers. **2018**, 6, 166		7
1233	Fabrication of Cellulose Nanofiber Reinforced Thermoplastic Composites. **2018**, 19, 1753-1759		4
1232	Treatment of Coffee Husk with Ammonium-Based Ionic Liquids: Lignin Extraction, Degradation, and Characterization. **2018**, 3, 10866-10876		14
1231	Critical role of {002} preferred orientation on electronic band structure of electrodeposited monoclinic WO3 thin films. **2018**, 2, 2224-2236		14
1230	Effect of ball-milling on crystallinity index, degree of polymerization and thermal stability of cellulose. **2018**, 270, 270-277		47
1229	Effect of aqueous glycine treatment on the fine structure and dyeing ability of cotton. **2018**, 202, 365-371		3
1228	Effects of aspect ratio and crystal orientation of cellulose nanocrystals on properties of poly(vinyl alcohol) composite fibers. **2018**, 167, 482-488		20
1227	Expression of a hyperthermophilic endoglucanase in hybrid poplar modifies the plant cell wall and enhances digestibility. *Biotechnology for Biofuels*, **2018**, 11, 225	7.8	7
1226	Isolation of Nanocellulose from Water Hyacinth Fiber (WHF) Produced via Digester-Sonication and Its Characterization. **2018**, 19, 1618-1625		46
1225	Production of zwitterionic cellulose by citric acid and triethanolamine hydrochloride for various end uses. **2018**, 135, 46840		2
1224	Synthesis and Characterization of Bacterial Cellulose from Citrus-Based Sustainable Resources. **2018**, 3, 10365-10373		30
1223	Effects of alternative energy sources on bacterial cellulose characteristics produced by Komagataeibacter medellinensis. **2018**, 117, 735-741		20
1222	Structural, mechanical and enzymatic study of pectin and cellulose during mango ripening. **2018**, 196, 313-321		27

1221	Scale-up of production of bacterial nanocellulose using submerged cultivation. **2018**, 93, 3418-3427	22
1220	Macrocyclic oligomers as compatibilizing agent for hemp fibres/biodegradable polyester eco-composites. **2018**, 146, 396-406	18
1219	Role of low-concentration acetic acid in promoting cellulose dissolution. **2018**, 25, 4389-4405	12
1218	Characteristics of cellulose extracted from Josapine pineapple leaf fibre after alkali treatment followed by extensive bleaching. **2018**, 25, 4407-4421	37
1217	Preserving Cellulose Structure: Delignified Wood Fibers for Paper Structures of High Strength and Transparency. **2018**, 19, 3020-3029	33
1216	Effect of isolation methods of chitin nanocrystals on the properties of chitin-silver hybrid nanoparticles. **2018**, 197, 349-358	24
1215	Green biorefinery of larch wood biomass to obtain the bioactive compounds, functional polymers and nanoporous materials. **2018**, 52, 1377-1394	11
1214	Solid acid-induced hydrothermal treatment of bagasse for production of furfural and levulinic acid by a two-step process. **2018**, 123, 118-127	22
1213	Synthesis and characterization of amine-modified spherical nanocellulose aerogels. **2018**, 53, 13304-13315	21
1212	The cellulose binding region in Trichoderma reesei cellobiohydrolase I has a higher capacity in improving crystalline cellulose degradation than that of Penicillium oxalicum. **2018**, 266, 19-25	17
1211	Biocomposites with increased dielectric constant based on chitosan and nitrile-modified cellulose nanocrystals. **2018**, 199, 20-30	32
1210	Cotton Cellulose-Derived Hydrogels with Tunable Absorbability: Research Advances and Prospects. **2018**, 1-27	
1209	Properties of cellulose nanofibre networks prepared from never-dried and dried paper mill sludge. **2018**, 197, 765-771	19
1208	Mechanical fragmentation of wheat and rice straw at different scales: Energy requirement in relation to microstructure properties and enzymatic hydrolysis. **2018**, 171, 38-47	10
1207	RSM based optimization of PEG assisted ionic liquid pretreatment of sugarcane bagasse for enhanced bioethanol production: Effect of process parameters. **2018**, 116, 89-98	27
1206	Production of self-supported conductive films based on cellulose, polyaniline and silver nanoparticles. **2018**, 199, 84-91	17
1205	Effect of ultrasound treatment on swelling behavior of cellulose in aqueous N-methyl-morpholine-N-oxide solution. **2018**, 49, 161-168	21
1204	Exploring the gut of Helicoverpa armigera for cellulose degrading bacteria and evaluation of a potential strain for lignocellulosic biomass deconstruction. **2018**, 73, 142-153	28

1203	Fabrication and Characterization of Nanofibrillated Cellulose (NFC) Reinforced Polymer Composite. **2018**,	13
1202	Influence of process variables on physical characteristics of spray freeze dried cellulose nanocrystals. **2018**, 25, 5711-5730	9
1201	Intensification of bioethanol production by using Tween 80 to enhance dilute acid pretreatment and enzymatic saccharification of corncob. **2018**, 124, 166-176	16
1200	In vitro performances and cellular uptake of clarithromycin nanocrystals produced by media milling technique. **2018**, 338, 471-480	8
1199	Nanocellulose for Industrial Use: Cellulose Nanofibers (CNF), Cellulose Nanocrystals (CNC), and Bacterial Cellulose (BC). **2018**, 74-126	65
1198	Selective recrystallization of cellulose composite powders and microstructure creation through 3D binder jetting. **2018**, 200, 229-238	29
1197	Crosslinked fibroin nanoparticles using EDC or PEI for drug delivery: physicochemical properties, crystallinity and structure. **2018**, 53, 14087-14103	21
1196	Characterization of Cellulase-Treated Fibers and Resulting Cellulose Nanocrystals Generated through Acid Hydrolysis. **2018**, 11,	27
1195	A facile approach of developing micro crystalline cellulose reinforced cementitious composites with improved microstructure and mechanical performance. **2018**, 338, 654-663	11
1194	Highly crystalline cellulose from brown seaweed Saccharina japonica: isolation, characterization and microcrystallization. **2018**, 25, 5523-5533	16
1193	Laccase based de-inking of mixed office waste and evaluation of its impact on physico-optical properties of recycled fiber. **2018**, 1, 233-244	11
1192	Top-down Approach to Produce Protein Functionalized and Highly Thermally Stable Cellulose Fibrils. **2018**, 19, 3549-3559	4
1191	Structural Evolution of Gossypium hirsutum Fibers Grown under Greenhouse and Hydroponic Conditions. **2018**, 6, 11	2
1190	Beneficiation of pulp and paper mill sludge: production and characterisation of functionalised crystalline nanocellulose. **2018**, 20, 1835-1845	14
1189	Physico-Chemical Conversion of Lignocellulose: Inhibitor Effects and Detoxification Strategies: A Mini Review. **2018**, 23,	208
1188	Predicting the Dielectric Properties of Nanocellulose-Modified Presspaper Based on the Multivariate Analysis Method. **2018**, 23,	4
1187	Thermoresponsive Hydrogels and Their Biomedical Applications: Special Insight into Their Applications in Textile Based Transdermal Therapy. **2018**, 10,	66
1186	Fungal Enzymes Applied to Industrial Processes for Bioethanol Production. **2018**, 65-83	1

1185	Physico-chemical oxidative cleavage strategy facilitates the degradation of recalcitrant crystalline cellulose by cellulases hydrolysis. *Biotechnology for Biofuels*, **2018**, 11, 16	7.8	6
1184	High Stiffness Cellulose Fibers from Low Molecular Weight Microcrystalline Cellulose Solutions Using DMSO as Co-Solvent with Ionic Liquid. **2018**, 303, 1800029		23
1183	Phosphoric acid-acetone process for cleaner production of acetone, butanol, and ethanol from waste cotton fibers. **2018**, 193, 459-470		14
1182	Disordering of the Crystal Structure of Cellulose Under Mechanical Activation. **2018**, 59, 201-208		19
1181	Production of high lignin-containing and lignin-free cellulose nanocrystals from wood. **2018**, 25, 5791-5805		29
1180	Extraction of lignin, structural characterization and bioconversion of sugarcane bagasse after ionic liquid assisted pretreatment. **2018**, 8, 374		23
1179	Investigating acid/peroxide-alkali pretreatment of sugarcane bagasse to isolate high accessibility cellulose applied in acetylation reactions. **2018**, 25, 5669-5685		8
1178	Wettability, surface free energy and cellulose crystallinity for pine wood (Pinus sp.) modified with chili pepper extracts as natural preservatives. **2018**, 25, 6151-6160		8
1177	Integrated paper electrodes derived from cotton stalks for high-performance flexible supercapacitors. **2018**, 53, 337-344		103
1176	High-Pressure Microfluidization as a Green Tool for Optimizing the Mechanical Performance of All-Cellulose Composites. **2018**, 6, 12727-12735		10
1175	Stepwise pretreatment of aqueous ammonia and ethylenediamine improve enzymatic hydrolysis of corn stover. **2018**, 124, 201-208		14
1174	Recent Trends on Nano-biocomposite Polymers for Food Packaging. **2018**, 101-130		11
1173	A Novel Study on Thermal Stability of Camphor Soot Reinforced Coir Fibers. **2018**, 19, 1567-1575		6
1172	Large-Scale Conductive Yarns Based on Twistable Korean Traditional Paper (Hanji) for Supercapacitor Applications: Toward High-Performance Paper Supercapacitors. **2018**, 8, 1801854		33
1171	Surface-Modified Cellulose Nanocrystal-incorporated Poly(butylene succinate) Nanocomposites. **2018**, 19, 1395-1402		6
1170	Physicochemical characterization of several types of naturally colored cotton fibers from Peru. **2018**, 197, 246-252		16
1169	Large-scale additive manufacturing with bioinspired cellulosic materials. **2018**, 8, 8642		35
1168	Anti-solvents tuning cellulose nanoparticles through two competitive regeneration routes. **2018**, 25, 4513-4523		11

1167	Chemical and thermal studies on esterification of EDTA with raw cellulose and mercerized cellulose EFB. **2018**,	
1166	Ionic conduction study of enhanced amorphous solid bio-polymer electrolytes based carboxymethyl cellulose doped NH 4 Br. **2018**, 497, 19-29	25
1165	Quantitative diagnostics of ancient paper using THz time-domain spectroscopy. **2018**, 142, 54-61	7
1164	Synthesis and Physical and Thermodynamic Properties of Lactic Acid and Malic Acid-Based Natural Deep Eutectic Solvents. **2018**, 63, 2548-2556	23
1163	Production of PEA composite microparticles with polyvinylpyrrolidone and luteolin using Supercritical Assisted Atomization. **2019**, 143, 82-89	9
1162	Degradation of cellulose in NaOH and NaOH/urea aqueous solutions by ultrasonic irradiation. **2019**, 51, 419-423	14
1161	Preparation and performance investigation of a lignin-based solid acid catalyst manufactured from olive cake for biodiesel production. **2019**, 132, 667-682	42
1160	Honeycomb-like hydrogel adsorbents derived from salecan polysaccharide for wastewater treatment. **2019**, 26, 8759-8773	10
1159	The effects of transition metal sulfates on cellulose crystallinity during accelerated ageing of silver fir wood. **2019**, 26, 2625-2638	14
1158	Effect of pretreatment with organic solvent on enzymatic digestibility of cauliflower wastes. **2019**, 49, 935-948	4
1157	Reversible photo-controlled release of bovine serum albumin by azobenzene-containing cellulose nanofibrils-based hydrogel. **2019**, 2, 462-470	21
1156	Biomethane Production From Lignocellulose: Biomass Recalcitrance and Its Impacts on Anaerobic Digestion. **2019**, 7, 191	72
1155	Preparation and thermostability of cellulose nanocrystals and nanofibrils from two sources of biomass: rice straw and poplar wood. **2019**, 26, 8625-8643	35
1154	Effect of Li-TiO2 nanoparticles incorporation in LDPE polymer nanocomposites for biocidal activity. **2019**, 19, 100359	11
1153	Investigating effects of high cellulase concentration on the enzymatic hydrolysis of the sisal cellulosic pulp. **2019**, 138, 919-926	5
1152	Production and characterization of cellulose from Leifsonia sp.. **2019**, 85, 35-42	9
1151	How properties of cellulose acetate films are affected by conditions of iodine-catalyzed acetylation and type of pulp. **2019**, 26, 6119-6132	3
1150	Impact of Ammonia Pretreatment Conditions on the Cellulose III Allomorph Ultrastructure and Its Enzymatic Digestibility. **2019**, 7, 14411-14424	11

1149	Synthesis of Magnetic Ferrite Nanoparticles with High Hyperthermia Performance via a Controlled Co-Precipitation Method. **2019**, 9,		43
1148	Methanolysis Fractionation and Catalytic Conversion of Poplar Wood toward Methyl Levulinate, Phenolics, and Glucose. **2019**, 67, 9840-9850		5
1147	Colloidal Behavior of Cellulose Nanocrystals Grafted with Poly(2-alkyl-2-oxazoline)s. **2019**, 4, 11893-11905		6
1146	Poly(4-vinylaniline)/Polyaniline Bilayer-Functionalized Bacterial Cellulose for Flexible Electrochemical Biosensors. **2019**, 35, 10354-10366		20
1145	Cellulosic-based hydrogel from biomass material for removal of metals from waste water. **2019**, 56, 968-981		10
1144	Microfibrillated cellulose (MFC) isolation based on stalk sweet sorghum through alkalinization-bleaching treatment: effect of soaking temperature. **2019**, 509, 012079		4
1143	Exploring the lignolytic potential of a new laccase producing strain Kocuria sp. PBS-1 and its application in bamboo pulp bleaching. **2019**, 143, 104726		18
1142	Multifaceted characterization of sugarcane bagasse under different steam explosion severity conditions leading to distinct enzymatic hydrolysis yields. **2019**, 139, 111542		16
1141	Phenotypic Variation of Cell Wall Composition and Stem Morphology in Hemp (L.): Optimization of Methods. **2019**, 10, 959		9
1140	Biosynthesis of polyesters and their application on cellulosic fibers. **2019**, 49-75		2
1139	Flexible transparent wood prepared from poplar veneer and polyvinyl alcohol. **2019**, 182, 107719		32
1138	Study on ionic liquid/cellulose/coagulator phase diagram and its application in green spinning process. **2019**, 289, 111127		11
1137	Facile extraction of cellulose nanocrystals. **2019**, 223, 115114		39
1136	Sequential treatment with pressurized fluid processing and ultrasonication for biorefinery of canola straw towards lignocellulosic nanofiber production. **2019**, 139, 111521		8
1135	Advanced strategy to produce insecticidal destruxins from lignocellulosic biomass. *Biotechnology for Biofuels*, **2019**, 12, 188	7.8	7
1134	Bacterial Cellulose production by K. saccharivorans BC1 strain using crude distillery effluent as cheap and cost effective nutrient medium. **2019**, 138, 950-957		27
1133	Isolation of lignocellulose nanofiber from recycled old corrugated container and its interaction with cationic starch–nanosilica combination to make paperboard. **2019**, 26, 7207-7221		17
1132	Unique Properties and Behavior of Nonmercerized Type-II Cellulose Nanocrystals as Carbon Nanotube Biocompatible Dispersants. **2019**, 20, 3147-3160		18

1131	Modification of microcrystalline cellulose structural properties by ball-milling and ionic liquid treatments and their correlation to enzymatic hydrolysis rate and yield. **2019**, 26, 7323-7335	17
1130	FTIR Spectroscopy in Cultural Heritage Studies: Non-destructive Analysis of Chinese Handmade Papers. **2019**, 35, 586-591	1
1129	Morphology and supramolecular structure characterization of cellulose isolated from heat-treated moso bamboo. **2019**, 26, 7067-7078	13
1128	Recovery and Reuse of Waste Tetra Pak Packages by Using a Novel Treatment. **2019**, 303-341	3
1127	Understanding the Xylan Content for Enhanced Enzymatic Hydrolysis of Individual Bamboo Fiber and Parenchyma Cells. **2019**, 7, 18603-18611	16
1126	Effect of combined dilute-alkaline and green pretreatments on corncob fractionation: Pretreated biomass characterization and regenerated cellulose film production. **2019**, 141, 111785	21
1125	Durable Antipilling Modification of Cotton Fabric with Chloropyrimidine Compounds. **2019**, 11,	3
1124	High-concentrated substrate enzymatic hydrolysis of pretreated rice straw with glycerol and aluminum chloride at low cellulase loadings. **2019**, 294, 122164	20
1123	Alginate-cellulose biopolymeric beads as efficient vehicles for encapsulation and slow-release of herbicide. **2019**, 583, 123970	10
1122	Stabilization of Magnetic Ferrite Nanostructures with Cellulose Derived From Biomass for the Abatement of Environmental Pollution. **2019**, 14, 417-425	
1121	A single step process to synthesize ordered porous carbon from coconut shells-eggshells biowaste. **2019**, 6, 115613	3
1120	Estimating Crystality Index of Microcrystalline Cellulose Using Diffraction Methods. **2019**, 60, 1430-1436	4
1119	Cellulose Nanocrystal Isolation from Hardwood Pulp using Various Hydrolysis Conditions. **2019**, 24,	8
1118	Comparative study of the effectiveness of protic and aprotic ionic liquids in microwave-irradiated catalytic conversion of lignocellulosic June grass to biofuel precursors. **2019**, 8, 100338	8
1117	Production and characterization of multifacet exopolysaccharide from an agricultural isolate, Bacillus subtilis. **2019**, 66, 1010-1023	4
1116	Pretreatment of waste biomass in deep eutectic solvents: Conductive heating versus microwave heating. **2019**, 142, 111865	27
1115	Probing cellulose structures with vibrational spectroscopy. **2019**, 26, 35-79	60
1114	Biocomposites of synthetic polymer modified microcrystalline jute cellulose particles and their hemolytic behavior. **2019**, 26, 8713-8727	8

1113	High-speed shearing of soybean flour suspension disintegrates the component cell layers and modifies the hydration properties of okara fibers. **2019**, 116, 108505	17
1112	Two characteristic cellulose nanocrystals (CNCs) obtained from oxalic acid and sulfuric acid processing. **2019**, 26, 8351-8365	20
1111	Production of Nanocellulose and Its Applications in Drug Delivery: A Critical Review. **2019**, 7, 15800-15827	85
1110	Fabrication and Characterization of Polypropylene ś Microcrystalline Cellulose Based Composites with Enhanced Compatibility. **2019**,	6
1109	A revised solid-state NMR method to assess the crystallinity of cellulose. **2019**, 26, 8993-9003	16
1108	Eco-friendly treatment of low-calcium coal fly ash for high pozzolanic reactivity: A step towards waste utilization in sustainable building material. **2019**, 238, 117962	106
1107	INFLUENCE OF PRETREATMENTS ON CRYSTALLINITY AND ENZYMATIC HYDROLYSIS IN SUGAR CANE RESIDUES. **2019**, 36, 131-141	16
1106	Mechanochemical amorphization of chitin: impact of apparatus material on performance and contamination. **2019**, 15, 1217-1225	11
1105	A highly efficient thermo responsive palladium nanoparticles incorporated guar gum hydrogel for effective catalytic reactions. **2019**, 226, 115289	15
1104	Production of Biocompatible Protein Functionalized Cellulose Membranes by a Top-Down Approach. **2019**, 5, 5968-5978	4
1103	Quantification of an Amorphous Phase in a Cement Samples by Powder X-ray Diffractometry/Rietveld Refinement with Reference Intensity Ratio. **2019**, 68, 609-614	0
1102	Cellulose Nanocrystals and Jute Fiber-reinforced Natural Rubber Composites: Cure Characteristics and Mechanical Properties. **2019**, 22,	11
1101	Effect of the extraction by thermosonication on castor oil quality and the microstructure of its residual cake. **2019**, 141, 111760	7
1100	Missense mutations in a transmembrane domain of the Komagataeibacter xylinus BcsA lead to changes in cellulose synthesis. **2019**, 19, 216	5
1099	High Molecular Weight Mixed-Linkage Glucan as a Mechanical and Hydration Modulator of Bacterial Cellulose: Characterization by Advanced NMR Spectroscopy. **2019**, 20, 4180-4190	3
1098	Reductive catalytic fractionation of black locust bark. **2019**, 21, 5841-5851	26
1097	Immobilization of quaternized polymers on bacterial cellulose by different grafting techniques. **2019**, 43, 15935-15945	5
1096	Surface hardness and flammability of NaSiO and nano-TiO reinforced wood composites.. **2019**, 9, 27973-27986	17

1095	Set-Up of Bacterial Cellulose Production From the Genus and Its Use in a Gluten-Free Bakery Product as a Case Study. **2019**, 10, 1953	17
1094	Enzymatic hydrolysis of cellulose using extracts from insects. **2019**, 485, 107811	5
1093	Influence of supercritical carbon dioxide treatment on the physicochemical properties of cellulose extracted from cassava pulp waste. **2019**, 154, 104605	4
1092	Gel-Type and Macroporous Cross-Linked Copolymers Functionalized with Acid Groups for the Hydrolysis of Wheat Straw Pretreated with an Ionic Liquid. **2019**, 9, 675	6
1091	Current achievements in the mechanically pretreated conversion of plant biomass. **2019**, 116, 1231-1244	38
1090	Production of high-purity cellulose, cellulose acetate and cellulose-silica composite from babassu coconut shells. **2019**, 210, 127-134	26
1089	Cellulose consolidation under high-pressure and high-temperature uniaxial compression. **2019**, 26, 2941-2954	6
1088	Tailored nanocellulose structure depending on the origin. Example of apple parenchyma and carrot root celluloses. **2019**, 210, 186-195	20
1087	Surfactant-assisted fabrication of ultra-permeable cellulose gels with macro channels and insights on regeneration of cellulose from ionic liquids. **2019**, 280, 64-70	1
1086	Dissolution of cellulose in 1-allyl-3-methylimidazolium methyl phosphonate ionic liquid and its composite system with NaPHO. **2019**, 209, 382-388	11
1085	Kinetic changes in cellulose properties during defibrillation into microfibrillated cellulose and cellulose nanofibrils by ultra-refining. **2019**, 127, 637-648	20
1084	Fractionation of Lignocellulosic Biomass over Core-Shell Ni@Al O Catalysts with Formic Acid as a Cocatalyst and Hydrogen Source. **2019**, 12, 1743-1762	21
1083	Cellulose nanocrystals in aqueous suspensions: rheology of lyotropic chiral liquid crystals. **2019**, 26, 2317-2332	18
1082	Durable antibacterial and hydrophobic cotton fabrics utilizing enamine bonds. **2019**, 211, 173-180	48
1081	Studies on novel nano-bimetal doped cellulose nanofibers derived from agrowaste towards deflouridation. **2019**, 128, 556-565	9
1080	Microstructure, thermal and mechanical properties of composite films based on carboxymethylated nanocellulose and polyacrylamide. **2019**, 211, 84-90	13
1079	Carbohydrate binding modules enhance cellulose enzymatic hydrolysis by increasing access of cellulases to the substrate. **2019**, 211, 57-68	37
1078	Cellulose solvent-based pretreatment for enhanced second-generation biofuel production: a review. **2019**, 3, 11-62	114

1077	X-ray diffraction on aged Brazilian wood species. **2019**, 246, 96-103		3
1076	Laccase pretreatment of wheat straw: effects of the physicochemical characteristics and the kinetics of enzymatic hydrolysis. *Biotechnology for Biofuels*, **2019**, 12, 159	7.8	43
1075	Tuning the physiochemical properties of bacterial cellulose: effect of drying conditions. **2019**, 54, 12024-12035		25
1074	Defibrillated Celluloses via Dual Twin-Screw Extrusion and Microwave Hydrothermal Treatment of Spent Pea Biomass. **2019**, 7, 11861-11871		8
1073	Assessment of wasteland derived biomass for bioethanol production. **2019**, 41, 1-8		17
1072	Carbon Defect Characterization of Nitrogen-Doped Reduced Graphene Oxide Electrocatalysts for the Two-Electron Oxygen Reduction Reaction. **2019**, 31, 3967-3973		53
1071	Data on morphological features change of pre-hydrolysis treated sugarcane bagasse using in-situ sodium hydroxide-sodium bisulfate method. **2019**, 24, 103971		1
1070	Effects of pretreatment applied to sugarcane bagasse on composition and morphology of cellulosic fractions. **2019**, 126, 231-238		19
1069	Functional Graphenic Materials That Seal Condenser Tube Leaks in Situ. **2019**, 11, 20881-20887		3
1068	Refining spent cotton gin trash following essential oil extraction for value added cellulosic sugars. **2019**, 7, 100223		5
1067	Synthesis and characterization of cellulose based graft copolymers with binary vinyl monomers for efficient removal of cationic dyes and Pb(II) ions. **2019**, 26, 1		7
1066	A combined homogenization-high intensity ultrasonication process for individualizaion of cellulose micro-nano fibers from rice straw. **2019**, 26, 5831-5849		41
1065	Glycerol-plasticized bacterial nanocellulose-based composites with enhanced flexibility and liquid sorption capacity. **2019**, 26, 5409-5426		21
1064	Wheat straw, corn stover, sugarcane, and Agave biomasses: chemical properties, availability, and cellulosic-bioethanol production potential in Mexico. **2019**, 13, 1143-1159		28
1063	Functionalized cellulose with hydroxyethyl methacrylate and glycidyl methacrylate for metal ions and dye adsorption applications. **2019**, 134, 704-721		26
1062	In Situ Growth of Layered Double Hydroxides on Sawdust for Pb(II) Adsorption. **2019**, 4, 5386-5393		2
1061	Structure and reactivity of cellulose from bleached kraft pulps of different Eucalyptus species upgraded to dissolving pulp. **2019**, 26, 5731-5744		12
1060	Surface Modification of Cellulose Nanocrystals with Succinic Anhydride. **2019**, 11,		25

1059	Laccase mediated delignification of pineapple leaf waste: an ecofriendly sustainable attempt towards valorization. **2019**, 13, 58	17
1058	Cellulose nanofibres from bagasse using a high speed blender and acetylation as a pretreatment. **2019**, 26, 4799-4814	16
1057	Study of the effect of enzymatic deconstruction on natural cellulose by NMR measurements. **2019**, 727, 105-115	12
1056	Sorption of Ni(II), Pb(II) and Cu(II) ions from aqueous solutions by cellulose grafted with poly(HEMA-co-AAc): Kinetic, isotherm and thermodynamic study. **2019**, 7, 103088	11
1055	Enzymatic hydrolysis of thermally pre-treated chitin and antimicrobial activity of N,N?-diacetylchitobiose. **2019**, 94, 2529-2536	3
1054	Characterization of cellulose fibers in Thespesia populnea barks: Influence of alkali treatment. **2019** , 217, 178-189	73
1053	Integrated Hydrolysis of Mixed Agro-Waste for a Second Generation Biorefinery Using Nepenthes mirabilis Pod Digestive Fluids. **2019**, 7, 64	4
1052	The sequential Fenton oxidation and sulfomethylation pretreatment for alleviating the negative effects of lignin in enzymatic saccharification of sugarcane bagasse. **2019**, 286, 121392	8
1051	Energy production potential of phytoremediation plant biomass: Helianthus annuus and Silybum marianum. **2019**, 135, 206-216	21
1050	Metrologically traceable quantification of trifluoroacetic acid content in peptide reference materials by19F solid-state NMR. **2019**, 56, 024002	4
1049	Cellulose hydrolysis by Clostridium thermocellum is agnostic to substrate structural properties in contrast to fungal cellulases. **2019**, 21, 2810-2822	8
1048	Exploring the action of endoglucanases on bleached eucalyptus kraft pulp as potential catalyst for isolation of cellulose nanocrystals. **2019**, 133, 1249-1259	25
1047	Production of dietary fibers from sugarcane bagasse and sugarcane tops using microwave-assisted alkaline treatments. **2019**, 135, 159-169	24
1046	A comparative study of thermochemical characteristics of lignocellulosic biomasses. **2019**, 8, 100186	21
1045	Effects of mercerization in the chemical and morphological properties of amazon piassava. **2019**, 29,	11
1044	Improved Reactivity of Cellulose via Its Crystallinity Reduction by Nondissolving Pretreatment with an Ionic Liquid. **2019**, 7, 9164-9171	18
1043	Anisotropic tough multilayer hydrogels with programmable orientation. **2019**, 6, 1504-1511	58
1042	Effect of mechanical treatment of sugar cane bagasse on properties of poly(ethylene oxide). **2019**, 23, 12-19	0

1041	Progress and Opportunities in the Characterization of Cellulose - An Important Regulator of Cell Wall Growth and Mechanics. **2018**, 9, 1894	64
1040	Extraction and characterization of cellulose microfibers from Retama raetam stems. **2019**, 29,	34
1039	Thermo-Oxidative Aging of LDPE/Stearoyl Chloride-Grafted Cellulose Nanocrystals Blown Films. **2019**, 27, 1226-1239	3
1038	Cellulosic ethanol production: Progress, challenges and strategies for solutions. **2019**, 37, 491-504	154
1037	Using cellulose fibers to fabricate transparent paper by microfibrillation. **2019**, 214, 26-33	22
1036	Exploring the potential of gas-phase esterification to hydrophobize the surface of micrometric cellulose particles. **2019**, 115, 138-146	12
1035	Prediction of Cellulose Crystallinity in Liquid Phase Using CBM-GFP Probe. **2019**, 27, 377-385	0
1034	Complete recovery of cellulose from rice straw pretreated with ethylene glycol and aluminum chloride for enzymatic hydrolysis. **2019**, 284, 98-104	21
1033	Pre-treatment of a sugarcane bagasse-based substrate prior to saccharification: Effect of coffee pulp and urea on laccase and cellulase activities of Pycnoporus sanguineus. **2019**, 239, 178-186	10
1032	Synthesis of high molecular weight chitosan from chitin by mechanochemistry and aging. **2019**, 21, 3276-3285	44
1031	Facile methacrylation of cellulose via alkaline aqueous esterification for thiol‐ene click functionalization. **2019**, 245, 18-21	4
1030	Tensile performance characterization of windmill palm leaf sheath fiber by polynomial fitting and XRD peak deconvolution. **2019**, 110, 1329-1335	0
1029	The magic angle view to food: magic-angle spinning (MAS) NMR spectroscopy in food science. **2019**, 15, 44	6
1028	Fabrication of optically transparent and strong nanopaper from cellulose nanofibril based on corncob residues. **2019**, 214, 159-166	12
1027	Marine Fungal White Biotechnology: An Ecological and Industrial Perspective. **2019**, 483-503	2
1026	Biopolymer-Based Materials from Polysaccharides: Properties, Processing, Characterization and Sorption Applications. **2019**,	13
1025	Biocomposites Produced from Hardwood Particles by Equal Channel Angular Pressing Without Additives. **2019**, 3, 36	0
1024	Formaldehyde-free, crease-resistant functionalization of cellulosic material modified by a hydrolyzed dicarboxylic acid based alkoxysilane/melamine finishing system. **2019**, 26, 4641-4654	12

1023	Enzymatic production of cello-oligomers with endoglucanases. **2019**, 26, 4279-4290	7
1022	Enzymatic post-hydrolysis of water-soluble cellulose oligomers released by chemical hydrolysis for cellulosic butanol production. **2019**, 26, 4479-4494	6
1021	Nanocellulose production from recycled paper mill sludge using ozonation pretreatment followed by recyclable maleic acid hydrolysis. **2019**, 216, 343-351	27
1020	Preparation of Cellulose Nanocrystals CNC from Nettle, Weeping Willow, Balm-Leaved Archangel, Lucerne and Spanish Broom. **2019**, 73-86	
1019	Assessment of cellulose in bark fibers of Thespesia populnea: Influence of stem maturity on fiber characterization. **2019**, 212, 439-449	23
1018	Characterization of mechanical pulverization/phosphoric acid pretreatment of corn stover for enzymatic hydrolysis. **2019**, 282, 69-74	37
1017	Synthesis, characterization and enzymatic surface roughing of cellulose/xylan composite films. **2019**, 213, 121-127	13
1016	Cellulose Nanocrystals-Based Nanocomposites. **2019**, 49-65	6
1015	Preparation of nanofibrillated cellulose and nanocrystalline cellulose from surgical cotton and cellulose pulp in hot-glycerol medium. **2019**, 26, 3127-3141	16
1014	In situ green preparation of silver nanoparticles/chemical pulp fiber composites with excellent catalytic performance. **2019**, 54, 6895-6907	10
1013	Characterization of Pearl Millet (Pennisetum glaucum) waste. **2019**, 212, 160-168	8
1012	Efficient Removal of Arsenic Using Zinc Oxide Nanocrystal-Decorated Regenerated Microfibrillated Cellulose Scaffolds. **2019**, 7, 6140-6151	67
1011	Isolation and characterization of cellulose fibers from Thespesia populnea barks: A study on physicochemical and structural properties. **2019**, 129, 396-406	57
1010	Pretreatment of Eucalyptus urophylla in γ-valerolactone/dilute acid system for removal of non-cellulosic components and acceleration of enzymatic hydrolysis. **2019**, 132, 21-28	25
1009	Microbially-derived nanofibrous cellulose polymer for connective tissue regeneration. **2019**, 99, 96-102	6
1008	Impact of uncharged and charged stabilizers on in vitro drug performances of clarithromycin nanocrystals. **2019**, 137, 68-76	15
1007	Co-pretreatment of wheat straw by potassium hydroxide and calcium hydroxide: Methane production, economics, and energy potential analysis. **2019**, 236, 720-726	13
1006	Anatomy of Plant Fibres. **2019**, 7-15	

1005	Microbial Cellulose from a Komagataeibacter intermedius Strain Isolated from Commercial Wine Vinegar. **2019**, 27, 956-967	9
1004	High-Density Molded Cellulose Fibers and Transparent Biocomposites Based on Oriented Holocellulose. **2019**, 11, 10310-10319	30
1003	Influence of Size Classifications on the Structural and Solid-State Characterization of Cellulose Materials. **2019**,	1
1002	Green simple microwave-assisted extraction (MAE) of cellulose from Theobroma cacao L. (TCL) husk. **2019**, 541, 012017	6
1001	. **2019**, 7, 171673-171683	1
1000	Effect of Eco-Friendly Cellulose Nanocrystals on Physical Properties of Cement Mortars. **2019**, 11,	21
999	Quantifying cellulose accessibility during enzyme-mediated deconstruction using 2 fluorescence-tagged carbohydrate-binding modules. **2019**, 116, 22545-22551	25
998	X-Ray Dating of Ancient Linen Fabrics. **2019**, 2, 2763-2783	7
997	Reaction engineering implications of cellulose crystallinity and water-promoted recrystallization. **2019**, 21, 5541-5555	19
996	Study of delignification process and crystallinity index on lignocellulose components of corn cob in different pretreatments: a combination of pretreatment (ionic choline acetate and NaOH) and NaOH pretreatment. **2019**, 625, 012029	
995	Effect of ionic liquid pretreatment on paper physical property and pulp refining performance. **2019**, 34, 495-506	1
994	Cellulose conversion into lactic acid over supported HPA catalysts. **2019**, 21, 6161-6178	27
993	High-performance flexible and self-healable quasi-solid-state zinc-ion hybrid supercapacitor based on borax-crosslinked polyvinyl alcohol/nanocellulose hydrogel electrolyte. **2019**, 7, 26524-26532	90
992	Preparation of Nanocellulose-Alginate Nanocomposites for Chlorhexidine Digluconate Drug Carrier. **2019**, 547, 012046	2
991	Assessment of a protic ionic liquid with respect to fractionation and changes in the structural features of hardwood and softwood. **2019**, 8, 100334	4
990	Influence of weave pattern and composite thickness on mechanical properties of bamboo/epoxy composites. **2019**, 6, 125334	3
989	Cellulose nanocrystal (CNC) produced from the sulphuric acid hydrolysis of the pine cone flower waste (Pinus merkusii Jungh Et De Vriese). **2019**, 1374, 012023	0
988	Characterization of Agricultural and Food Processing Residues for Potential Rubber Filler Applications. **2019**, 3, 102	6

987	Mechanochemistry-assisted hydrolysis of softwood over stable sulfonated carbon catalysts in a semi-batch process.. **2019**, 9, 33525-33538	4
986	Pinewood pyrolysis occurs at lower temperatures following treatment with choline-amino acid ionic liquids. **2019**, 236, 306-312	10
985	Thermal and physicomechanical properties of gamma-irradiated EPDM/waste newsprint microfibers composites treated using acrylic styrene emulsion as a coupling agent. **2019**, 25, E91-E106	3
984	Metal ions and organic dyes sorption applications of cellulose grafted with binary vinyl monomers. **2019**, 209, 684-697	31
983	Structural modification of fiber and starch in turmeric residue by chemical and mechanical treatment for production of biodegradable films. **2019**, 126, 507-516	12
982	Influence of residual lignin and thermal drying on the ultrastructure of chemical hardwood pulp and its enzymatic hydrolysis properties. **2019**, 26, 2075-2085	8
981	Hemicellulose-Cellulose Composites Reveal Differences in Cellulose Organization after Dilute Acid Pretreatment. **2019**, 20, 893-903	13
980	Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids. **2019**, 20, 502-514	19
979	TEMPO oxidation and high-speed blending as a combined approach to disassemble bacterial cellulose. **2019**, 26, 2291-2302	13
978	Thermal behaviour and fungi resistance of composites based on wood and natural and synthetic epoxy resins cured with maleopimaric acid. **2019**, 160, 148-161	19
977	Chitosan-based nanocomposite matrices: Development and characterization. **2019**, 123, 189-200	19
976	Enhancement of sugar production from coconut husk based on the impact of the combination of surfactant-assisted subcritical water and enzymatic hydrolysis. **2019**, 274, 89-96	10
975	Effects of hydrothermal treatment on enhancing enzymatic hydrolysis of rapeseed straw. **2019**, 134, 446-452	31
974	Evaluating the efficiency of □-valerolactone/water/acid system on Eucalyptus pretreatment by confocal Raman microscopy and enzymatic hydrolysis for bioethanol production. **2019**, 134, 228-234	19
973	Adsorptive remediation of cobalt oxide nanoparticles by magnetized □-cellulose fibers from waste paper biomass. **2019**, 273, 386-393	19
972	Differential activity of lytic polysaccharide monooxygenases on celluloses of different crystallinity. Effectiveness in the sustainable production of cellulose nanofibrils. **2019**, 207, 59-67	28
971	Effect of anti-solvents on the characteristics of regenerated cellulose from 1-ethyl-3-methylimidazolium acetate ionic liquid. **2019**, 124, 314-320	23
970	Hydrogels derived from lignocellulosic compounds: Evaluation of the compositional, structural, mechanical and antimicrobial properties. **2019**, 128, 323-330	30

969	Effects of ball milling on the structure of cotton cellulose. **2019**, 26, 305-328		162
968	Benefits of Renewable Hydrogels over Acrylate- and Acrylamide-Based Hydrogels. **2019**, 197-243		1
967	Cotton Cellulose-Derived Hydrogels with Tunable Absorbability: Research Advances and Prospects. **2019**, 331-356		
966	Overcoming biomass recalcitrance by synergistic pretreatment of mechanical activation and metal salt for enhancing enzymatic conversion of lignocellulose. *Biotechnology for Biofuels*, **2019**, 12, 12	7.8	44
965	Enhancing Lignocellulosic Biomass Hydrolysis by Hydrothermal Pretreatment, Extraction of Surface Lignin, Wet Milling and Production of Cellulolytic Enzymes. **2019**, 12, 1179-1195		46
964	Biginelli reaction on cellulose acetoacetate: a new approach for versatile cellulose derivatives. **2019**, 209, 223-229		15
963	Physical and chemical characteristics of pretreated slash pine sawdust influence its enzymatic hydrolysis. **2019**, 130, 528-536		29
962	Effect of gamma-irradiation on the mechanical behavior of EPDM rubber-recycled newsprint microfibers composites. **2019**, 25, 198-212		0
961	An aggregated understanding of cellulase adsorption and hydrolysis for ball-milled cellulose. **2019**, 273, 1-7		37
960	Structural characterization of cellulose pulp in aqueous NMMO solution under the process conditions of lyocell slurry. **2019**, 206, 220-228		21
959	Eco-friendly post-consumer cotton waste recycling for regenerated cellulose fibers. **2019**, 206, 141-148		54
958	Insight into thermal stability of cellulose nanocrystals from new hydrolysis methods with acid blends. **2019**, 26, 507-528		60
957	Catalytic peroxide fractionation processes for the green biorefinery of wood. **2019**, 126, 717-735		3
956	Biopolymeric films obtained from the parenchyma cells of Agave salmiana leaves. **2019**, 26, 1869-1879		1
955	Rapeseed Straw Biorefinery Process. **2019**, 7, 790-801		11
954	The Effect of Membrane Structure Prepared from Carboxymethyl Cellulose and Cellulose Nanofibrils for Cationic Dye Removal. **2019**, 27, 318-332		23
953	Controlled mercerization of bacterial cellulose provides tunability of modulus and ductility over two orders of magnitude. **2019**, 90, 530-537		4
952	Future Perspectives on Biological Fabrication and Material Farming. **2019**, 3, 1800136		1

951	Surface treatments of plant fibers and their effects on mechanical properties of fiber-reinforced composites: A review. **2019**, 38, 15-30	87
950	Hibiscus sabdariffa (Roselle): A potential source of bast fiber. **2019**, 16, 49-57	17
949	Effect of different acid catalysts on the properties of activated carbon fiber precursors obtained from phenolated wheat straw. **2019**, 16, 781-794	2
948	Production and Characterization of Bacterial Cellulose from Citrus Peels. **2019**, 10, 2165-2175	36
947	Appropriate bleaching technique for coconut fiber. **2019**, 16, 442-452	7
946	Assessment of microwave-assisted alkali pretreatment for the production of sugars from banana fruit peel waste. **2019**, 10, 3-10	15
945	Mechanical properties of gamma-irradiated EPDM/Waste newsprint microfibers composites treated using acrylic styrene emulsion as a coupling agent. **2019**, 40, 1209-1227	2
944	Enhanced catalytic activity of composites of NiFe2O4 and nano cellulose derived from waste biomass for the mitigation of organic pollutants. **2020**, 13, 783-798	27
943	Production of Micro- and Nanofibrillated Cellulose through an Aqueous Counter Collision System Followed by Ultrasound: Effect of Mechanical Pretreatments. **2020**, 17, 1099-1110	5
942	Assessment of Sisal Fiber Integrity as a Reinforcing Element in MgO-Based Cement Matrices. **2020**, 11, 3045-3056	2
941	Comparative Study of Three Chemical Pretreatments and Their Effects on the Structural Changes of Rice Straw and Butanol Production. **2020**, 11, 2771-2781	14
940	A simple process of isolation microcrystalline cellulose using ultrasonic irradiation. **2020**, 41, 1217-1226	13
939	Development of polylactic acid (PLA) bio-composite films reinforced with bacterial cellulose nanocrystals (BCNC) without any surface modification. **2020**, 41, 1488-1495	9
938	Valorization of Zante currant side-streams for the production of phenolic-rich extract and bacterial cellulose: a novel biorefinery concept. **2020**, 95, 427-438	9
937	Hydrothermal conversion of wood, organosolv, and chlorite pulps. **2020**, 10, 1-13	11
936	Transition characteristics of Brazilian vegetable fibers investigated by heating microscopy. **2020**, 17, 450-462	2
935	A NOVEL STUDY ON SURFACE MODIFICATION OF PALMYRA FIBERS FOR ENHANCING MECHANICAL AND THERMAL PROPERTIES. **2020**, 27, 1950104	3
934	Extraction and Characterization of Nanocellulose from Raw Oil Palm Leaves (Elaeis guineensis). **2020**, 45, 175-186	18

933	Study of plant and tunicate based nanocrystalline cellulose in hybrid polymeric nanocomposites. **2020**, 27, 249-261	12
932	Chemical and mineral characterization of Romanian book paper materials (XVIIIXIXth century). **2020**, 152, 104307	3
931	Cow manure as additive to a DMBR for stable and high-rate digestion of food waste: Performance and microbial community. **2020**, 168, 115099	27
930	A Comprehensive Review on Hydrothermal Carbonization of Biomass and its Applications. **2020**, 3, 1-19	52
929	Characterization of Handmade Papers (13th15th century) from Camerino and Fabriano (Marche, Italy). **2020**, 42, 8-18	1
928	Physicochemical properties of film fabricated from cotton gin trash. **2020**, 239, 122009	22
927	Saccharification of lignocellulosic biomass using seawater and halotolerant cellulase with potential application in second-generation bioethanol production. **2020**, 10, 639-650	11
926	Kafirin-derived films for sustainable development by amidation and esterification. **2020**, 77, 2719-2735	1
925	Microwave-Assisted Hydrolysis of Cotton Waste to Glucose in Combination with the Concentrated Sulfuric Acid Impregnation Method. **2020**, 11, 4279-4287	4
924	Biodiesel purification using biomass-based adsorbent manufactured from delignified olive cake residues. **2020**, 151, 103-117	10
923	Celery cellulose hydrogel as carriers for controlled release of short-chain fatty acid by ultrasound. **2020**, 309, 125717	13
922	Pyrolysis and copyrolysis of three lignocellulosic biomass residues from the agro-food industry: A comparative study. **2020**, 102, 362-370	37
921	Using alternative waste coir fibres as a reinforcement in cement-fibre composites. **2020**, 231, 117121	24
920	Unravelling the consequences of ultra-fine milling on physical and chemical characteristics of flax fibres. **2020**, 360, 129-140	10
919	Fast Production of Cellulose Nanocrystals by Hydrolytic-Oxidative Microwave-Assisted Treatment. **2020**, 12,	12
918	Innovating Generation of Nanocellulose from Industrial Hemp by Dual Asymmetric Centrifugation. **2020**, 8, 1850-1858	17
917	Aqueous sorption of tetracycline using rarasaponin-modified nanocrystalline cellulose. **2020**, 301, 112433	8
916	Recent developments in modification of lignin using ionic liquids for the fabrication of advanced materialsA review. **2020**, 301, 112417	45

915	Kinetic analysis of microwave-enhanced cellulose dissolution in ionic solvents. **2020**, 22, 1003-1010	14
914	Synthetic fungal multifunctional cellulases for enhanced biomass conversion. **2020**, 22, 478-489	15
913	Versatile grafted microcrystalline cellulose with ionic liquid as new Losartan-controlled release material. **2020**, 124, 109490	6
912	Characterization and optimization of production of bacterial cellulose from strain CGMCC 17276 based on whole-genome analysis. **2020**, 232, 115788	16
911	Reduced graphene oxide/zinc oxide coated wearable electrically conductive cotton textile for high microwave absorption. **2020**, 188, 107994	51
910	Preparation and functional study of cellulose/carbon quantum dot composites. **2020**, 27, 2099-2113	9
909	Carboxymethyl and Nanofibrillated Cellulose as Additives on the Preparation of Chitosan Biocomposites: Their Influence Over Films Characteristics. **2020**, 28, 676-688	5
908	Biogas optimisation processes and effluent quality: A review. **2020**, 133, 105449	25
907	Ag-functionalized nanocrystalline cellulose for paper preservation and strengthening. **2020**, 231, 115773	14
906	Highly efficient and selectivefractionation strategy for lignocellulosic biomass with recyclable dioxane/ethylene glycol binary solvent. **2020**, 144, 112038	12
905	Use of a bacterial cellulose filter for the removal of oil from wastewater. **2020**, 91, 288-296	18
904	Enhanced Softwood Cellulose Accessibility by H3PO4 Pretreatment: High Sugar Yield without Compromising Lignin Integrity. **2020**, 59, 1010-1024	7
903	Eco-Friendly Cellulose Nanofibrils Designed by Nature: Effects from Preserving Native State. **2020**, 14, 724-735	58
902	Influence of yeast extract enrichment and Pycnoporus sanguineus inoculum on the dephenolisation of sugar-cane bagasse for production of second-generation ethanol. **2020**, 260, 116370	3
901	Enhancement of methane production from high solid anaerobic digestion of pretreated palm oil decanter cake using a modified solid inclined reactor. **2020**, 95, 781-790	3
900	The effect of hemicellulose on the binding and activity of cellobiohydrolase I, Cel7A, from Trichoderma reesei to cellulose. **2020**, 27, 781-797	13
899	Microcrystalline cellulose production from sugarcane bagasse: Sustainable process development and life cycle assessment. **2020**, 249, 119342	44
898	The Topochemistry of Cellulose Nanofibrils as a Function of Mechanical Generation Energy. **2020**, 8, 1471-1478	11

897	Development of Polypropylene Composites with Green Coffee Cake Fibers Subjected to Water Vapor Explosion. **2020**, 11, 6855-6867	1
896	A mechano-biocatalytic one-pot approach to release sugars from lignocellulosic materials. **2020**, 121, 109675	6
895	Amorphization and Semi-Dry Conversion of Crystalline Cellulose to Oligosaccharides by Impregnated Phosphoric Acid. **2020**, 93, 273-278	7
894	Enhanced hydrolysis and acidification of cellulose at high loading for methane production via anaerobic digestion supplemented with high mobility nanobubble water. **2020**, 297, 122499	23
893	Preparation of cellulose with controlled molecular weight via ultrasonic treatment improves cholesterol-binding capacity. **2020**, 44, e14340	2
892	Effect of various pretreatments on improving cellulose enzymatic digestibility of tobacco stalk and the structural features of co-produced hemicelluloses. **2020**, 297, 122471	19
891	Studies on bacterial cellulose produced by a novel strain of Lactobacillus genus. **2020**, 229, 115513	35
890	Assessment of pretreatment effects on anaerobic digestion of switchgrass: Economics-energy-environment (3E) analysis. **2020**, 145, 111957	9
889	Enabling technologies for utilization of maize as a bioenergy feedstock. **2020**, 14, 402-416	3
888	Assessment on temperature-pressure severally controlled explosion pretreatment of poplar. **2020**, 230, 115622	4
887	On the use of microwave pretreatment to assist zero-waste chemical-free production process of nanofibrillated cellulose from lime residue. **2020**, 230, 115630	12
886	Physicochemical characteristics of cellulose nanocrystals isolated from seaweed biomass. **2020**, 102, 105542	36
885	Potential of alkali treated cornhusk film as reinforcement for epoxy laminate composites. **2020**, 27, 2555-2567	4
884	Mechanically milled powder from cotton gin trash for diverse applications. **2020**, 361, 679-686	14
883	Maximizing production of cellulose nanocrystals and nanofibers from pre-extracted loblolly pine kraft pulp: a response surface approach. **2020**, 7,	20
882	Grafting Diels-Alder moieties on cellulose nanocrystals through carbamation. **2020**, 250, 116966	5
881	Evaluation of chitosan crystallinity: A high-resolution solid-state NMR spectroscopy approach. **2020**, 250, 116891	14
880	NMR and XRD quantification of bound and free water interaction of spruce wood fibers. **2020**, 260, 120470	3

879	Pilot-Scale Production of Cellulosic Nanowhiskers With Similar Morphology to Cellulose Nanocrystals. **2020**, 8, 565084	6
878	Enzymically attaching oligosaccharide-linked 'cargoes' to cellulose and other commercial polysaccharides via stable covalent bonds. **2020**, 164, 4359-4369	4
877	Alignment of Bacterial Cellulose Using Wrinkling.. **2020**, 3, 7898-7907	5
876	Graphene oxide reinforced nanocomposite oleogels improves corneal permeation of drugs. **2020**, 60, 102024	6
875	Surface modification of cellulose nanofiber film with fatty acids for developing renewable hydrophobic food packaging. **2020**, 26, 100587	13
874	Potential of polylactide based nanocomposites-nanopolysaccharide filler for reinforcement purpose: a comprehensive review. **2020**, 27, 1	9
873	Facile isolation of colloidal stable chitin nano-crystals from Metapenaeus ensis shell via solid maleic acid hydrolysis and their application for synthesis of silver nanoparticles. **2020**, 27, 9853-9875	6
872	Effect of high pressure homogenization on sugar beet pulp: Physicochemical, thermal and structural properties. **2020**, 134, 110177	7
871	Terahertz time-domain spectroscopy as a novel tool for crystallographic analysis in cellulose. **2020**, 27, 9767-9777	3
870	Removal of lead(II) and chromium(VI) ions from synthetic wastewater by the roots of harpagophytum procumbens plant. **2020**, 8, 104541	11
869	Facile Postprocessing Alters the Permeability and Selectivity of Microbial Cellulose Ultrafiltration Membranes. **2020**, 54, 13249-13256	1
868	Development of an Adsorbent for Bisphenol A Based on a Polymer Grafted from Microcrystalline Cellulose. **2020**, 231, 1	2
867	Cellulose Microfibres Obtained from Agro-Industrial Tara Waste for Dye Adsorption in Water. **2020**, 231, 1	2
866	Potential of stepwise pyrolysis for on-site treatment of agro-residues and enrichment of value-added chemicals. **2020**, 118, 667-676	6
865	Potential To Produce Sugars and Lignin-Containing Cellulose Nanofibrils from Enzymatically Hydrolyzed Chemi-Thermomechanical Pulps. **2020**, 8, 14955-14963	13
864	«Green» synthesis and characterization of galactomannan sulfates obtained using sulfamic acid. **2020**, 1	13
863	A comparative study of artificial cow and sheep rumen fermentation of corn straw and food waste: Batch and continuous operation. **2020**, 745, 140731	7
862	Oxidized Carbonized Cellulose-Coated Filters for Environmental Contaminant Adsorption and Detection. **2020**, 59, 13578-13587	2

861	Biodegradation of Crystalline Cellulose Nanofibers by Means of Enzyme Immobilized-Alginate Beads and Microparticles. **2020**, 12,	11
860	Influence of amorphous cellulose on mechanical, thermal, and hydrolytic degradation of poly(lactic acid) biocomposites. **2020**, 10, 11342	10
859	Synthesis, Characterization and Cytotoxicity Studies of Aminated Microcrystalline Cellulose Derivatives against Melanoma and Breast Cancer Cell Lines. **2020**, 12,	14
858	Efficient biodegradable flexible hydrophobic thermoelectric material based on biomass-derived nanocellulose film and copper iodide thin nanostructured layer. **2020**, 212, 231-240	4
857	Characteristics of natural biopolymers and their derivative as sorbents for chromium adsorption: a review. **2020**, 2,	11
856	Extraction of lignocellulosic constituents from cow dung: preparation and characterisation of nanocellulose. **2020**, 1	5
855	High-Speed Fabrication of Clear Transparent Cellulose Nanopaper by Applying Humidity-Controlled Multi-Stage Drying Method. **2020**, 10,	2
854	Preparation and characterization of novel microstructure cellulosic sawdust material: application as potential adsorbent for wastewater treatment. **2020**, 27, 8169-8180	6
853	Physical and Chemical Characteristics of An Organic Nanoparticle Synthesized from Gmelina (Gmelina arborea Roxb) Wood Bark. **2020**, 466, 012021	
852	Characterisation and composition identification of waste-derived fuels obtained from municipal solid waste using thermogravimetry: A review. **2020**, 38, 942-965	20
851	Enzymatic Hydrolysis of Softwood Derived Paper Sludge by an In Vitro Recombinant Cellulase Cocktail for the Production of Fermentable Sugars. **2020**, 10, 775	4
850	Eco-Friendly Cellulose Nanofiber Extraction from Sugarcane Bagasse and Film Fabrication. **2020**, 12, 6015	27
849	A two-stage C5 selective hydrolysis on soybean hulls for xylose separation and value-added cellulose applications. **2020**, 1	1
848	Ex-situ modification of bacterial cellulose for immediate and sustained drug release with insights into release mechanism. **2020**, 249, 116816	16
847	Mesoporous silica pellets as bifunctional bone drug delivery system for cefazolin. **2020**, 588, 119718	7
846	Combined Small-Angle Neutron Scattering, Diffusion NMR, and Molecular Dynamics Study of a Eutectogel: Illuminating the Dynamical Behavior of Glyceline Confined in Bacterial Cellulose Gels. **2020**, 124, 7647-7658	10
845	Convergent evolution of processivity in bacterial and fungal cellulases. **2020**, 117, 19896-19903	12
844	Synthesis and chemical modification of crystalline nanocellulose to reinforce natural rubber composites. **2020**, 31, 3059-3069	15

843	Cellulose-Supported Nanosized Zinc Oxide: Highly Efficient Bionanomaterial for Removal of Arsenic from Water. **2020**, 253-267	2
842	Physicochemical and Thermal Properties of Acrylated Palm Olein as a Promising Biopolymer. **2020**, 28, 2734-2748	5
841	Impact of centrifugation treatment on enzymatic hydrolysis of cellulose and xylan in poplar fibers with high lignin content. **2020**, 316, 123866	2
840	Characterization of potential cellulose fiber from Luffa vine: A study on physicochemical and structural properties. **2020**, 164, 2247-2257	13
839	Modification of cellulose nanocrystal surface chemistry with diverse nucleophiles for materials integration. **2020**, 8, 18024-18031	5
838	An innovative platform exploiting solid microcrystalline cellulose for selective separation of bromate species in drinking water: Preparation, characterization, kinetics and thermodynamic study. **2020**, 159, 105510	1
837	Imaging and spectroscopic techniques for microstructural and compositional analysis of lignocellulosic materials: a review. **2020**, 1	2
836	Use of green solvents as pre-treatment of dissolving pulp to decrease CS2 consumption from viscose production. **2020**, 27, 10313-10325	0
835	Physical techniques shed light on the differences in sugarcane bagasse structure subjected to steam explosion pretreatments at equivalent combined severity factors. **2020**, 158, 113003	7
834	Mechanical and microstructural characterization of epoxy/sawdust (Pinus elliottii) composites. **2020**, 096739112095650	1
833	Synthesis and Self-Assembly of Cellulose II Nanofibrils Catalyzed by the Reverse Reaction of Cellodextrin Phosphorylase. **2020**, 21, 4355-4364	8
832	Tuning Organic Semiconductor Alignment and Aggregation via Nanoconfinement. **2020**, 124, 22799-22807	4
831	Effect of Cellulose Solvents on the Characteristics of Cellulose/FeO Hydrogel Microspheres as Enzyme Supports. **2020**, 12,	3
830	The use of fluorescent protein-tagged carbohydrate-binding modules to evaluate the influence of drying on cellulose accessibility and enzymatic hydrolysis.. **2020**, 10, 27152-27160	6
829	Analysis on Physiochemical Properties of Cellulose Fiber from Rice Straw Waste. **2020**, 808, 012038	3
828	Relationship between Structural Characteristics of Cellulose Nanocrystals Obtained from Kraft Pulp. **2020**, 10,	3
827	Carbohydrate-binding module -mannosylation alters binding selectivity to cellulose and lignin. **2020**, 11, 9262-9271	5
826	Towards the scalable isolation of cellulose nanocrystals from tunicates. **2020**, 10, 19090	12

825	Physicochemical, Morphological, and Microstructural Characterisation of Bacterial Nanocellulose from Gluconacetobacter xylinus BCZM. **2020**, 1-12	2
824	Harvested Microalgal Biomass from Different Water Treatment FacilitiesIts Characteristics and Potential Use as Renewable Sources of Plant Biostimulation. **2020**, 10, 1882	0
823	Application of a Low-Cost Cellulose-Based Bioadsorbent for the Effective Recovery of Terbium Ions from Aqueous Solutions. **2020**, 10, 1641	2
822	Simple and Eco-Friendly Route from Agro-Food Waste to Water Pollutants Removal. **2020**, 13,	2
821	Interface tailoring by a versatile functionalization platform for nanostructured wood biocomposites. **2020**, 22, 8012-8023	16
820	The effect of switchgrass plant cell wall properties on its deconstruction by thermochemical pretreatments coupled with fungal enzymatic hydrolysis or Clostridium thermocellum consolidated bioprocessing. **2020**, 22, 7924-7945	7
819	The potential using of organic nanoparticles synthesized from Gmelina (Gmelina arborea Roxb.) wood bark as nanofiller of wood adhesive: physical, chemical and thermal properties. **2020**, 17, 165-175	1
818	Esterification of Cellulose Nanofibers with Valeric Acid and Hexanoic Acid. **2020**, 28, 1055-1063	2
817	Cocoa shell: an industrial by-product for the preparation of suspensions of holocellulose nanofibers and fat. **2020**, 27, 10873-10884	6
816	Structural Effects of Cellulose on Hydrolysis and Carbonization Behavior during Hydrothermal Treatment. **2020**, 5, 12210-12223	21
815	Modification of Chitosan Membranes via Methane Ion Beam. **2020**, 25,	2
814	Co-production of xylooligosaccharides and monosaccharides from poplar by a two-step acetic acid and sodium chlorite pretreatment. **2020**, 152, 112500	13
813	Response surface methodology (RSM) for assessing the effects of pretreatment, feedstock, and enzyme complex association on cellulose hydrolysis. **2020**, 1	6
812	Tunicate Cellulose Nanocrystals as Stabilizers for PLGA-based Polymeric Nanoparticles. **2020**, 25, 206-214	4
811	Comprehensive review on nanocellulose: Recent developments, challenges and future prospects. **2020**, 110, 103884	73
810	Increment in evolution of cellulose crystallinity analysis. **2020**, 27, 5445-5448	89
809	Fabrication of all-cellulose nanocomposites from corn stalk. **2020**, 100, 4390-4399	6
808	Top-Down Approach Making Anisotropic Cellulose Aerogels as Universal Substrates for Multifunctionalization. **2020**, 14, 7111-7120	60

807	Production of Nanocellulose Using Citric Acid in a Biorefinery Concept: Effect of the Hydrolysis Reaction Time and Techno-Economic Analysis. **2020**, 59, 11505-11516	24
806	Improved methane production from corn straw using anaerobically digested sludge pre-augmented by nanobubble water. **2020**, 311, 123479	11
805	CMC and CNF-based alizarin incorporated reversible pH-responsive color indicator films. **2020**, 246, 116614	35
804	Nanoparticle assembly modulated by polymer chain conformation in composite materials. **2020**, 12, 14560-14572	12
803	Supplementation of O2-containing gas nanobubble water to enhance methane production from anaerobic digestion of cellulose. **2020**, 398, 125652	14
802	(4)-Morpholinothiosemicarbazide-Modified Cellulose: Synthesis, Structure, Kinetics, Thermodynamics, and Ni(II) Removal Studies. **2020**, 5, 15229-15239	1
801	Effect of Purification Methods on Commercially Available Cellulose Nanocrystal Properties and TEMPO Oxidation. **2020**, 8, 698	6
800	Durable and Effective Antibacterial Cotton Fabric Collaborated with Polypropylene Tissue Mesh for Abdominal Wall Defect Repair. **2020**, 6, 3868-3877	7
799	Transparent Ultraviolet (UV)-Shielding Films Made from Waste Hemp Hurd and Polyvinyl Alcohol (PVA). **2020**, 12,	20
798	Comprehensively Understanding Enzymatic Hydrolysis of Lignocellulose and Cellulase–lignocellulose Adsorption by Analyzing Substrates' Physicochemical Properties. **2020**, 13, 1108-1120	2
797	Gas-pressurized torrefaction of biomass wastes: Roles of pressure and secondary reactions. **2020**, 313, 123640	13
796	Biodegradable Polymers for Biomedical Additive Manufacturing. **2020**, 20, 100700	37
795	Effect of combustion and nitrogen gas atmospheres on the torrefaction performance of oil palm frond leaves and stems. **2020**, 736, 022020	
794	Effect of carboxymethyl cellulose concentration on mechanical and water vapor barrier properties of corn starch films. **2020**, 246, 116521	17
793	A Sodium-Ion Battery Separator with Reversible Voltage Response Based on Water-Soluble Cellulose Derivatives. **2020**, 12, 29264-29274	10
792	Purification and Enzymatic Properties of a Difunctional Glycoside Hydrolase from HML366. **2020**, 60, 475-484	3
791	One-Pot Alcoholysis of the Lignocellulosic Eucalyptus nitens Biomass to n-Butyl Levulinate, a Valuable Additive for Diesel Motor Fuel. **2020**, 10, 509	15
790	Improving the compatibility, surface strength, and dimensional stability of cellulosic fibers using glycidyl methacrylate grafting. **2020**, 55, 12906-12920	6

789	Effect of Initial Conformation on the Starch Biopolymer Film Formation Studied by NMR. **2020**, 25,	5
788	Poly(acryloyl hydrazide)-grafted cellulose nanocrystal adsorbents with an excellent Cr(VI) adsorption capacity. **2020**, 394, 122512	42
787	Fractionation of non-timber wood from Atlantic mixed forest into high-value lignocellulosic materials. **2020**, 40, 200-212	
786	Potential of Xylanases to Reduce the Viscosity of Micro/Nanofibrillated Bleached Kraft Pulp.. **2020**, 3, 2201-2208	2
785	Facile preparation of spherical cellulose nanoparticles: chemical hydrolysis of fibres with tension. **2020**, 2, 1	3
784	Cationic Dialdehyde Nanocellulose from Sugarcane Bagasse for Efficient Chromium(VI) Removal. **2020**, 8, 4734-4744	25
783	The potential of flax shives as reinforcements for injection moulded polypropylene composites. **2020**, 148, 112324	19
782	Synthesis and conservation of cellulose nanocrystals. **2020**, 238, 116187	10
781	Augmented Leaching Pretreatments for Forest Wood Waste and Their Effect on Ash Composition and the Lignocellulosic Network. **2020**, 8, 5674-5682	6
780	Structural characterization of cellulose nanofibers isolated from spent coffee grounds and their composite films with poly(vinyl alcohol): a new non-wood source. **2020**, 27, 5017-5028	15
779	The inhibitory effect of xylan on enzymatic hydrolysis of cellulose is dependent on cellulose ultrastructure. **2020**, 27, 4417-4428	11
778	Self-Fibrillating Cellulose Fibers: Rapid In Situ Nanofibrillation to Prepare Strong, Transparent, and Gas Barrier Nanopapers. **2020**, 21, 1480-1488	13
777	Studies of Cellulose and Starch Utilization and the Regulatory Mechanisms of Related Enzymes in Fungi. **2020**, 12,	17
776	Mechanical Properties Tailoring of 3D Printed Photoresponsive Nanocellulose Composites. **2020**, 30, 2002914	16
775	Conversion of Lignocellulosic Corn Agro-Waste into Cellulose Derivative and Its Potential Application as Pharmaceutical Excipient. **2020**, 8, 711	7
774	Facile NMR Relaxation Sensor for Monitoring of Biomass Degradation Products during Conversion to Biogas. **2020**,	1
773	Co-production of xylo-oligosaccharides, xylose and cellulose nanofibrils from sugarcane bagasse. **2020**, 321, 35-47	12
772	The Effect of Alcohol Precipitants on Structural and Morphological Features and Thermal Properties of Lyocell Fibers. **2020**, 8, 43	1

771	Natural deep eutectic solvent mediated extrusion for continuous high-solid pretreatment of lignocellulosic biomass. **2020**, 22, 6372-6383	27
770	Study of Crystallinity Index and Thermal Properties of Sweet Sorghum Fiber after Pressurized-Cooker Treatment. **2020**, 391, 1900129	2
769	Ag/TiO2 photocatalyst immobilized onto modified natural fibers for photodegradation of anthracene. **2020**, 227, 115939	24
768	Short- and Long-Term Effects of X-ray Synchrotron Radiation on Cotton Paper. **2020**, 21, 2795-2807	3
767	Structure and electrical resistivity of individual carbonised natural and man-made cellulose fibres. **2020**, 55, 10271-10280	4
766	Weak-base pretreatment to increase biomethane production from wheat straw. **2020**, 27, 37989-38003	6
765	Properties of starch biofoam reinforced with microcrystalline cellulose from banana stem fiber. **2020**,	0
764	The effects of various pH and temperature to enhance lactic acid production using Lactobacillus casei and Lactobacillus rhamnosus. **2020**,	
763	Enhanced hydrolysis of hydrothermally and autohydrolytically treated sugarcane bagasse and understanding the structural changes leading to improved saccharification. **2020**, 139, 105639	11
762	High acoustic absorption properties of hackberry compared to nine different hardwood species: A novel finding for acoustical engineers. **2020**, 169, 107475	13
761	Enzyme cocktail: An opportunity for greener agro-pulp biobleaching in paper industry. **2020**, 271, 122573	10
760	Effects of ultrasound-assisted enzyme hydrolysis on the microstructure and physicochemical properties of okara fibers. **2020**, 69, 105247	21
759	3D printable carboxylated cellulose nanocrystal-reinforced hydrogel inks for tissue engineering. **2020**, 12, 025029	30
758	Investigating the effects of hemicellulose pre-extraction on the production and characterization of loblolly pine nanocellulose. **2020**, 27, 3693-3706	13
757	Determination of Crystallinity of Thermosetting Urea-Formaldehyde Resins Using Deconvolution Method. **2020**, 28, 615-624	16
756	Direct Conversion of Biomass Carbohydrates to Platform Chemicals: 5-Hydroxymethylfurfural (HMF) and Furfural. **2020**, 34, 3284-3293	23
755	Impact of Drying on Meso- and Nanoscale Structures of Citrus Fiber: A Study by SFG, ATR-IR, XRD, and DLS. **2020**, 59, 2718-2724	0
754	Facile and Effective Preparation of the Lotus Leaf-based Adsorbent by Exposing Cellulose Nanocrystal for Waste Water Treatment and Air Purification. **2020**, 21, 350-358	1

753	Thermal degradation of rice husk: Effect of pre-treatment on kinetic and thermodynamic parameters. **2020**, 268, 117164	45
752	Influencing Factors for Determining the Crystallinity of Native Cellulose by X-ray Diffraction. **2020**, 36, 947-951	0
751	Preparation of Natural Multicompatible Silk Nanofibers by Green Deep Eutectic Solvent Treatment. **2020**, 8, 4499-4510	11
750	Kinetic Studies and Optimization of Heterogeneous Catalytic Oxidation Processes for the Green Biorefinery of Wood. **2020**, 63, 229-242	6
749	Solid-State Fermentation of Cassava Roots Using Cellulolytic-Type Alkaliphilic Bacillus spp. Cultures to Modify the Cell Walls and Assist Starch Release. **2020**, 191, 1395-1410	0
748	Tuning the properties of regenerated cellulose: Effects of polarity and water solubility of the coagulation medium. **2020**, 236, 116068	7
747	Assessing straw digestate as feedstock for bioethanol production. **2020**, 153, 261-269	4
746	An integrated biorefinery process to comprehensively utilize corn stalk in a MIBK/water/Al(NO3)3·9H2O biphasic system: Chemical and morphological changes. **2020**, 147, 112173	6
745	Crystallinity reduction and enhancement in the chemical reactivity of cellulose by non-dissolving pre-treatment with tetrabutylphosphonium acetate. **2020**, 27, 5545-5562	18
744	Interphase Design of Cellulose Nanocrystals/Poly(hydroxybutyrate--valerate) Bionanocomposites for Mechanical and Thermal Properties Tuning. **2020**, 21, 1892-1901	13
743	Hyaluronic Acid-Cellulose Composites as Patches for Minimizing Bacterial Infections. **2020**, 5, 4125-4132	10
742	Surface modified cellulose nanomaterials: a source of non-spherical nanoparticles for drug delivery. **2020**, 7, 1727-1758	42
741	Impact of mild and harsh conditions of formic acid-based organosolv pretreatment on biomass fractionation of sugarcane tops. **2020**, 11, 2027	3
740	Cosubstrate strategy for enhancing lignocellulose degradation during rumen fermentation in vitro: Characteristics and microorganism composition. **2020**, 250, 126104	11
739	Rapid Depolymerization of Decrystallized Cellulose to Soluble Products via Ethanolysis under Mild Conditions. **2020**, 13, 2634-2641	3
738	Mechanical and structural properties of cellulose nanofiber/poly(vinyl alcohol) hydrogels cross-linked by a freezing/thawing method and borax. **2020**, 27, 4373-4387	21
737	Biocoal - Quality control and assurance. **2020**, 135, 105509	12
736	Effect of AC-voltage harmonics on oil impregnated paper in transformer bushings. **2020**, 27, 26-32	9

735	Fractionation of Cellulose-Rich Products from an Empty Fruit Bunch (EFB) by Means of Steam Explosion Followed by Organosolv Treatment. **2020**, 10, 835	5
734	Preparation of bio-eco based cellulose nanomaterials from used disposal paper cups through citric acid hydrolysis. **2020**, 235, 115997	23
733	Persistent action of cow rumen microorganisms in enhancing biodegradation of wheat straw by rumen fermentation. **2020**, 715, 136529	19
732	Enhanced production of bacterial cellulose by Komactobacter intermedius using statistical modeling. **2020**, 27, 2497-2509	19
731	Survey of wheat straw stem characteristics for enhanced resistance to lodging. **2020**, 27, 2469-2484	11
730	Complementing Vanillin and Cellulose Production by Oxidation of Lignocellulose with Stirring Control. **2020**, 8, 2361-2374	28
729	Impact of Cellulose Dissolution on 1-Butyl-3-Methylimidazolium Chloride Crystallization Studied by Raman Spectroscopy, Wide-Angle X-ray Scattering, and Solid-State NMR. **2020**, 20, 1706-1715	2
728	Statistical analysis of the crystallinity index of nanocellulose produced from Kraft pulp via controlled enzymatic hydrolysis. **2020**, 67, 366-374	3
727	Oxidized bacterial cellulose membrane as support for enzyme immobilization: properties and morphological features. **2020**, 27, 3055-3083	22
726	The effect of the carboxylation degree on cellulose nanofibers and waterborne polyurethane/cellulose nanofiber nanocomposites properties. **2020**, 173, 109084	8
725	Cellulose-based monoliths with enhanced surface area and porosity. **2020**, 137, 48975	4
724	Aerobic biodegradation in freshwater and marine environments of textile microfibers generated in clothes laundering: Effects of cellulose and polyester-based microfibers on the microbiome. **2020**, 151, 110826	30
723	A stepwise pretreatment of sugarcane bagasse by alkaline and hydroxymethyl reagent for bioethanol production. **2020**, 145, 112136	12
722	Cationic modification of nanocrystalline cellulose from sago fronds. **2020**, 27, 3121-3141	13
721	Enzymatic Deconstruction of Sugarcane Bagasse and Straw to Obtain Cellulose Nanomaterials. **2020**, 8, 2287-2299	61
720	Isolation and characterization of microfibrillated cellulose and nanofibrillated cellulose with "biomechanical hotspots". **2020**, 234, 115827	11
719	Fabrication of efavirenz loaded nano-formulation using quality by design (QbD) based approach: Exploring characterizations and in vivo safety. **2020**, 56, 101545	5
718	The synergy between cellulose nanofibrils and calcium carbonate in a hybrid composite system. **2020**, 27, 3773-3787	7

717	Amorphous cellulose thin films. **2020**, 27, 2959-2965	5
716	Structural properties and electrical conductivity mechanisms of semiconducting quaternary nanocomposites: Effect of two transition metal oxides. **2020**, 144, 109505	6
715	Role of solvent exchange in dispersion of cellulose nanocrystals and their esterification using fatty acids as solvents. **2020**, 27, 4319-4336	6
714	The main factors affecting the catalytic properties of Ru/Cs-HPA systems in one-pot hydrolysis-hydrogenation of cellulose to sorbitol. **2020**, 595, 117489	17
713	Unmasking the heterogeneity of carbohydrates in heartwood, sapwood, and bark of Eucalyptus. **2020**, 238, 116212	6
712	Highly Efficient Preparation of Functional and Thermostable Cellulose Nanocrystals via HSO Intensified Acetic Acid Hydrolysis. **2020**, 239, 116233	53
711	Studies on ASA emulsion stabilized with anionic polyvinylamine and its evaluation for sizing of different types of paper furnishes. **2020**, 34, 100229	2
710	Synthesis of 5-HMF from an ultrasound-ionic liquid pretreated sugarcane bagasse by using a microwave-solid acid/ionic liquid system. **2020**, 149, 112361	22
709	The role of pretreatment in the catalytic valorization of cellulose. **2020**, 487, 110883	30
708	Cellulose Nanocrystals Derived from Textile Waste through Acid Hydrolysis and Oxidation as Reinforcing Agent of Soy Protein Film. **2020**, 12,	19
707	Bacterial Cellulose Based Composites: Preparation and Characterization. **2020**, 978, 183-190	2
706	Effect of production process scale-up on the characteristics and properties of bacterial nanocellulose obtained from overripe Banana culture medium. **2020**, 240, 116341	14
705	Cellulose-based polymer electrolyte derived from waste coconut husk: residual lignin as a natural plasticizer. **2020**, 27, 1	8
704	Nanocellulose from Industrial and Agricultural Waste for Further Use in PLA Composites. **2020**, 28, 1851-1868	19
703	Amidation of TEMPO-oxidized cellulose nanocrystals using aromatic aminated molecules. **2020**, 298, 603-617	14
702	Polyacrylamide stabilized alkenyl succinic anhydride emulsion as sizing agent for various cellulosic pulps and fillers. **2020**, 236, 116069	0
701	Effect of cellulose oxalate as cellulosic reinforcement in ternary composites of polypropylene/maleated polypropylene/cellulose. **2020**, 134, 105894	7
700	Characterize the physicochemical structure and enzymatic efficiency of agricultural residues exposed to □-irradiation pretreatment. **2020**, 150, 112228	10

699	Effect of periodic high-frequency vibration with rigid spheres added on high solids enzymatic hydrolysis of steam-exploded corn straw. **2020**, 94, 99-109	3
698	Elucidation of Changes in Cellulose Ultrastructure and Accessibility in Hardwood Fractionation Processes with Carbohydrate Binding Modules. **2020**, 8, 6767-6776	3
697	Processes of catalytic oxidation for the production of chemicals from softwood biomass. **2021**, 375, 132-144	6
696	Development of a superhydrophobic cellulose fabric via enzyme treatment and surface hydrophobization. **2021**, 91, 40-50	4
695	Carnauba (Copernicia prunifera) palm tree biomass as adsorbent for Pb(II) and Cd(II) from water medium. **2021**, 28, 18941-18952	5
694	Characterization of spray-dried nanofibrillated cellulose and effect of different homogenization methods on the stability and rheological properties of the reconstituted suspension. **2021**, 28, 207-221	1
693	Alkaline treatment combined with enzymatic hydrolysis for efficient cellulose nanofibrils production. **2021**, 255, 117383	12
692	Spectroscopy, microscopy, and other techniques for characterization of bacterial nanocellulose and comparison with plant-derived nanocellulose. **2021**, 419-454	2
691	Mechanical behaviour and microscopic analysis of epoxy and E-glass reinforced banyan fibre composites with the application of artificial neural network and deep neural network for the automatic prediction of orientation. **2021**, 55, 213-234	9
690	Enhanced electrical conductivity and structural, mechanical characterization of standalone poly(vinyl alcohol)-graphite nanoplatelets composite films. **2021**, 138, 49976	0
689	Natural acidic deep eutectic solvent to obtain cellulose nanocrystals using the design of experience approach. **2021**, 252, 117136	11
688	Stoichiometry-dependent porosity by ion irradiation: In(1−x)Al(x)Sb films. **2021**, 148, 109769	3
687	Analysis of porous structures of cellulose aerogel monoliths and microparticles. **2021**, 310, 110625	11
686	Modification of Adansonia digitata Cellulose by Hydroxamic Acid: a Promising Resource for Removing Pb (II) Ions from Water. **2021**, 8, 287-310	2
685	Review: Periodate oxidation of wood polysaccharides-Modulation of hierarchies. **2021**, 252, 117105	23
684	Symbiotic culture of nanocellulose pellicle: A potential matrix for 3D bioprinting. **2021**, 119, 111552	9
683	Additive manufacturing of nanocellulose based scaffolds for tissue engineering: Beyond a reinforcement filler. **2021**, 252, 117159	13
682	Production routes to tailor the performance of cellulose nanocrystals. **2021**, 6, 124-144	90

681	Sugarcane bagasse based biorefineries in India: potential and challenges. **2021**, 5, 52-78	21
680	Direct observation of endoglucanase fibrillation and rapid thickness identification of cellulose nanoplatelets using constructive interference. **2021**, 254, 117463	4
679	Additive-Free Aqueous MXene Inks for Thermal Inkjet Printing on Textiles. **2021**, 17, 2006376	26
678	Variations in structure and saccharification efficiency of biomass of different sorghum varieties subjected to aqueous ammonia and glycerol pretreatments. **2021**, 159, 113072	5
677	The physiochemical alteration of flax fibers structuring components after different scouring and bleaching treatments. **2021**, 160, 113112	1
676	Lignocellulose Fractionation Using Recyclable Phosphoric Acid: Lignin, Cellulose, and Furfural Production. **2021**, 14, 909-916	7
675	Characterization of a novel bacterial cellulose producer for the production of eco-friendly piezoelectric-responsive films from a minimal medium containing waste carbon. **2021**, 28, 671-689	5
674	In-situ synthesis of carbon dot at cellulose nanofiber for durable water treatment membrane with high selectivity. **2021**, 255, 117387	8
673	Intensification of pre-treatment and fractionation of agricultural residues. **2021**, 159, 108231	4
672	Comparison of tension wood and normal wood for oxidative nanofibrillation and network characteristics. **2021**, 28, 1085-1104	3
671	Recent advances in cellulose-based piezoelectric and triboelectric nanogenerators for energy harvesting: a review. **2021**, 9, 1910-1937	61
670	Design strategies, properties and applications of cellulose nanomaterials-enhanced products with residual, technical or nanoscale lignin-A review. **2021**, 254, 117480	4
669	Effect of magnesium oxide pretreatment on the delignification and enzymatic hydrolysis of corncob. **2021**, 161, 113170	5
668	Characterization of cellulose nano/microfibril reinforced polypropylene composites processed via solid-state shear pulverization. **2021**, 42, 1371-1382	3
667	Structural elucidation and cytotoxic analysis of a fructan based biopolymer produced extracellularly by Zymomonas mobilis KIBGE-IB14. **2021**, 499, 108223	5
666	Co2P nanosheet cocatalyst-modified Cd0.5Zn0.5S nanoparticles as 2D-0D heterojunction photocatalysts toward high photocatalytic activity. **2021**, 407, 113081	9
665	Enzymatic hydrolysis and simultaneous saccharification and fermentation of green coconut fiber under high concentrations of ethylene oxide-based polymers. **2021**, 163, 1536-1547	9
664	Extraction and characterization of nanocellulose from three types of palm residues. **2021**, 10, 526-537	24

663	Improved stabilisation of graphite nanoflake dispersions using hydrothermally-produced nanocellulose. **2021**, 610, 125668	3
662	Engineering of sustainable biomaterial composites from cellulose and silk fibroin: Fundamentals and applications. **2021**, 167, 687-718	18
661	Evaluation of the effects of different chemical pretreatments in sugarcane bagasse on the response of enzymatic hydrolysis in batch systems subject to high mass loads. **2021**, 165, 1-13	4
660	Enhancing cellulose nanofibrillation of eucalyptus Kraft pulp by combining enzymatic and mechanical pretreatments. **2021**, 28, 189-206	4
659	Liquid ammonia pretreatment optimization for improved release of fermentable sugars from sugarcane bagasse. **2021**, 281, 123922	9
658	Characterization of the crystallographic properties of bamboo plants, natural and viscose fibers by X-ray diffraction method. **2021**, 112, 1295-1303	4
657	Eco-friendly nanocellulose and its biomedical applications: current status and future prospect. **2021** , 32, 112-149	12
656	Examination of miscibility characteristics of the synthetic plastic-mimetic peptide with polyacrylamide: development of nonwoven mats by electrospinning. **2021**, 60, 405-418	
655	Developing of Chemically Treated Waste Biomass Adsorbent for Dye Removal. **2021**, 18, 968-977	5
654	Natural Cellulosic Fiber from Coccinia Indica Stem for Polymer Composites: Extraction and Characterization. **2021**, 18, 644-652	19
653	Physicochemical characterization of residual biomass (seed and fiber) from a□□(Euterpe oleracea) processing and assessment of the potential for energy production and bioproducts. **2021**, 11, 925-935	9
652	Biocomposites: could agroindustrial wastes be used as reinforcements in polymers?. **2021**, 42, 2085-2094	0
651	Emerging research trends in new natural fibers□ome insights. **2021**, 205-217	
650	Optimization of Cassava Pulp Pretreatment by Liquid Hot Water for Biomethane Production. 1	2
649	Effect of Particle Size in Polyethyltene Glycol-Assisted [BMIM][Cl] Pretreatment of Sugarcane Bagasse. 1	2
648	The degradation of cellulose in ionic mixture solutions under the high pressure of carbon dioxide.. **2021**, 11, 3484-3494	1
647	Effect of Cellulose Nanocrystals on the Mechanical Properties of Polymeric Composites. **2021**, 77-95	1
646	Generation of highly amenable cellulose-I□via selective delignification of rice straw using a reusable cyclic ether-assisted deep eutectic solvent system. **2021**, 11, 1591	10

645	Rational feeding strategies of substrate and enzymes to enzymatic hydrolysis bioreactors. **2021**, 30-30	
644	Cellulose Dissolution in Ionic Liquid under Mild Conditions: Effect of Hydrolysis and Temperature. **2021**, 9, 5	5
643	Characterization of the supramolecular structures of cellulose nanocrystals of different origins. **2021**, 28, 1369-1385	10
642	Comprehensive utilization strategy of cellulose in a facile, controllable, high-yield preparation process of cellulose nanocrystals using aqueous tetrabutylphosphonium hydroxide. **2021**, 23, 1805-1815	3
641	State of the art of post-consumer textile waste upcycling to reach the zero waste milestone. **2021**, 28, 14253-14270	22
640	Bacterial cellulose: Trends in synthesis, characterization, and applications. **2021**, 923-974	3
639	Ethylene glycol based acid pretreatment of corn stover for cellulose enzymatic hydrolysis.. **2021**, 11, 14140-14147	3
638	Current perspective on improved fermentative production and purification of fungal cellulases for successful biorefinery applications: a brief review. 1	2
637	Nanomaterials obtained from renewable resources and their application as catalysts in biodiesel synthesis. **2021**, 481-509	2
636	Kinetics of ionic liquid-facilitated cellulose decrystallization by Raman spectral mapping. **2021**, 28, 1321-1330	4
635	A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization. **2021**, 42, 1588-1630	35
634	Use of Endoglucanase and Accessory Enzymes to Facilitate Mechanical Pulp Nanofibrillation. **2021**, 9, 1406-1413	6
633	Natural polymer-based hydrogels for adsorption applications. **2021**, 267-306	0
632	Zea Mays Husk Reinforced Epoxy Composites. **2021**, 53-58	
631	Ultrafast rechargeable Zn micro-batteries endowing a wearable solar charging system with high overall efficiency. **2021**, 14, 1602-1611	19
630	Anaerobic Digestion for Producing Renewable Energy-The Evolution of This Technology in a New Uncertain Scenario. **2021**, 23,	8
629	Optimization of lignin removal pre-treatment process in acetone-butanol-ethanol (ABE) production from empty fruit bunches of oil palm. **2021**,	
628	Bacterial Cellulose: A Multifaceted Microbial Product. **2021**, 221-241	

627	Multi-scale study of the integrated use of the carbohydrate fractions of sugarcane bagasse for ethanol and xylitol production. **2021**, 163, 1343-1355	13
626	A predictive toolset for the identification of effective lignocellulosic pretreatment solvents: a case study of solvents tailored for lignin extraction. **2021**, 23, 7269-7289	3
625	Influence of cellulose nanofibrils on the rheology, microstructure and strength of alkali activated ground granulated blast-furnace slag: a comparison with ordinary Portland cement. **2021**, 54, 1	7
624	Chemical-physical and dynamical-mechanical characterization on Spartium junceum L. cellulosic fiber treated with softener agents: a preliminary investigation. **2021**, 11, 35	3
623	Wood as an ecological niche for microorganisms: Wood formation, structure, and cell wall composition. **2021**, 17-34	1
622	Opuntia spp. in the Textile Industry. **2021**, 985-998	
621	Changes in chemical and structural composition of sugarcane bagasse caused by alkaline pretreatments [Ca(OH)2 and NaOH] modify the amount of endoglucanase and □-glucosidase produced by Aspergillus niger in solid-state fermentation. 1-13	1
620	Investigation of the Structural, Thermal and Morphological Properties of Nanocellulose Synthesised from Pineapple Leaves and Sugarcane Bagasse. **2021**, 17,	4
619	Spray-drying microencapsulation using whey protein isolate and nano-crystalline starch for enhancing the survivability and stability of TF-7. **2021**, 30, 245-256	5
618	Structural and Morphological Analysis of Cellulose Pulp Produced from the Fractionation of Sawdust Using □-Valerolactone. **2021**, 6, 4126-4136	4
617	Insights on Cellulose Research in the Last Two Decades in Romania. **2021**, 13,	1
616	Rapid Processing of Holocellulose-Based Nanopaper toward an Electrode Material. **2021**, 9, 3337-3346	5
615	Nanoscale Dynamics of Cellulase TrCel7A Digesting Cellulose.	0
614	Hydrogel-Forming Algae Polysaccharides: From Seaweed to Biomedical Applications. **2021**, 22, 1027-1052	34
613	Synergistic Catalytic Effect of Sulphated Zirconia□HCl System for Levulinic Acid and Solid Residue Production Using Microwave Irradiation. **2021**, 14, 1582	0
612	Contributions of Crystalline and Noncrystalline Cellulose Can Occur in the Same Spectral Regions: Evidence Based on Raman and IR and Its Implication for Crystallinity Measurements. **2021**, 22, 1357-1373	5
611	Enhanced Gas Separation Prowess Using Functionalized Lignin-Free Lignocellulosic Biomass/Polysulfone Composite Membranes. **2021**, 11,	1
610	Preparation of formyl cellulose and its enhancement effect on the mechanical and barrier properties of polylactic acid films. **2021**, 172, 82-92	4

609	Paper Ageing: The Effect of Paper Chemical Composition on Hydrolysis and Oxidation. **2021**, 13,	3
608	A greener, mild, and efficient bioprocess for the pretreatment and saccharification of rice straw. 1	3
607	and Analyses of the Effects of Source, Length, and Charge on the Cytotoxicity and Immunocompatibility of Cellulose Nanocrystals. **2021**, 7, 1450-1461	5
606	Eco-friendly high-density polyethylene/amorphous cellulose composites: Environmental and functional value. **2021**, 290, 125886	4
605	High yield production of nanocrystalline cellulose by microwave-assisted dilute-acid pretreatment combined with enzymatic hydrolysis. **2021**, 160, 108292	5
604	Characterization of nanocellulose from Indica rice straw as reinforcing agent in epoxy-based nanocomposites. **2021**, 61, 1594-1606	3
603	Drug release behaviour and mechanism from unmodified and in situ modified bacterial cellulose. **2021**, 87, 110-120	4
602	Changes in cell wall components and hygroscopic properties of Pinus radiata caused by heat treatment. **2021**, 79, 851-861	3
601	Comparative analysis of two recombinant LPMOs from Aspergillus fumigatus and their effects on sugarcane bagasse saccharification. **2021**, 144, 109746	7
600	A novel composite derived from carbonized hawthorn waste pulp/marble waste powder by ball milling: preparation, characterization, and usability as bifunctional adsorbent. 1	1
599	Impact of dyes and finishes on the aquatic biodegradability of cotton textile fibers and microfibers released on laundering clothes: Correlations between enzyme adsorption and activity and biodegradation rates. **2021**, 165, 112030	16
598	PREPARATION AND ANALYSIS OF CELLULOSE PFA COMPOSITES: A CRITICAL REVIEW. **2021**, 55, 299-309	1
597	New sonochemical magnetite nanoparticles functionalization approach of dithiooxamide-formaldehyde developed cellulose: From easy synthesis to recyclable 4-nitrophenol reduction. **2021**, 35, e6257	0
596	Construction of physically crosslinked cellulose nanofibrils/alkali lignin/montmorillonoite/polyvinyl alcohol network hydrogel and its application in methylene blue removal. **2021**, 28, 5531	6
595	Preparation of Ag NPs and Its Multifunctional Finishing for Cotton Fabric. **2021**, 13,	5
594	Custom-sized graphene oxide for the hydrolysis of cellulose. **2021**, 175, 429-439	4
593	Cellulose-based polymers. **2021**,	0
592	Cellulose fibers deconstruction by twin-screw extrusion with in situ enzymatic hydrolysis via bioextrusion. **2021**, 327, 124819	3

591	Crystallization of Polysaccharides. **2021**, 283-300	0
590	Dispersion analysis of nanofillers and its relationship to the properties of the nanocomposites. **2021**, 47, 5104-5104	1
589	Effect of nanofillers on the crystalline and mechanical properties of EVACO polymer nanocomposites. **2021**,	0
588	Cellulose nanocrystal extraction from rice straw using a chlorine-free bleaching process. **2021**, 28, 1-12	6
587	A comparative study on the crystalline structure of cellulose isolated from bamboo fibers and parenchyma cells. **2021**, 28, 5993	9
586	Influence of Swelling Media on the Crystallinity and Accessibility of Lyocell Fibers: An FTIR and 13C NMR Analysis. 1-12	0
585	Positron annihilation and correlated dielectric property studies of a transition metal oxide-modified quaternary nanocomposite 0.1P2O5□.4ZnO□.5(xV2O5□(1−x)MoO3). **2021**, 864, 158395	1
584	Control of the aqueous solubility of cellulose by hydroxyl group substitution and its effect on processing. **2021**, 223, 123681	4
583	Unlocking the potential of insect and ruminant host symbionts for recycling of lignocellulosic carbon with a biorefinery approach: a review. **2021**, 20, 107	5
582	Elastic piezoelectric aerogels from isotropic and directionally ice-templated cellulose nanocrystals: comparison of structure and energy harvesting. **2021**, 28, 6323	5
581	Facile Processing of Transparent Wood Nanocomposites with Structural Color from Plasmonic Nanoparticles. **2021**, 33, 3736-3745	10
580	Ultrasound-Stimulated PVA Microbubbles for Adhesive Removal from Cellulose-Based Materials: A Groundbreaking Low-Impact Methodology. **2021**, 13, 24207-24217	1
579	Biodegradable flexible transparent films with copper iodide and biomass-derived nanocellulose for ultraviolet and high-energy visible light protection. **2021**, 220, 852-863	3
578	Controlling intercalation sites of hard carbon for enhancing Na and K storage performance. **2021**, 411, 128490	21
577	Biorefinery on-demand: Modulating pretreatments to recover lignin, hemicellulose, and extractives as co-products during ethanol production. **2021**, 163, 113336	14
576	Effective changes in cellulose cell walls, gas permeability and sound absorption capability of Cocos nucifera (palmwood) by steam explosion. **2021**, 28, 5707	4
575	Exploring the dew retting feasibility of hemp in very contrasting European environments: Influence on the tensile mechanical properties of fibres and composites. **2021**, 164, 113337	11
574	The impact of carbamazepine crystallinity on carbamazepine-loaded microparticle formulations. **2021**, 602, 120638	0

573	Upcycling of Waste Hop Stems into Cellulose Nanofibers: Isolation and Structural Characterization. **2021**, 1, 347-354		3
572	Influence of multiwalled carbon nanotubes on the structure and properties of poly(ethylene-co-vinyl acetate-co-carbon monoxide) nanocomposites. **2021**, 42, 4412-4423		0
571	Recent advances in the application of cellulose derivatives for removal of contaminants from aquatic environments. **2021**, 28, 7521-7557		8
570	Selective delignification of poplar wood with a newly isolated white-rot basidiomycete Peniophora incarnata T-7 by submerged fermentation to enhance saccharification. *Biotechnology for Biofuels*, **2021**, 14, 135	7.8	4
569	Rosin acid modification of bamboo powder and thermoplasticity of its products based on hydrothermal pretreatment. **2021**, 4, 584-590		6
568	Effect of Prestage Hydrothermal Treatment on the Formation of Struvite vs Vivianite during Semicontinuous Anaerobic Digestion of Sewage Sludge. **2021**, 9, 9093-9105		2
567	Preparation of polyurethane/poly (2-hydroxyethyl methacrylate) semi-IPNs containing cellulose nanocrystals for biomedical applications. **2021**, 27, 102421		5
566	Extraction of cellulose to progress in cellulosic nanocomposites for their potential applications in supercapacitors and energy storage devices. **2021**, 56, 14448-14486		5
565	Extraction of new natural cellulosic fiber from Trachelospermum jasminoides (star jasmine) and its characterization for textile and composite uses. **2021**, 28, 6899-6915		3
564	Identifying the origin of local flexibility in a carbohydrate polymer. **2021**, 118,		12
563	Metagenomic Discovery and Characterization of Multi-Functional and Monomodular Processive Endoglucanases as Biocatalysts. **2021**, 11, 5150		0
562	Aqueous pretreatment of triticale straw for integrated production of hemicellulosic methane and cellulosic butanol. **2021**, 171, 971-980		3
561	Determination of starch crystallinity with the Fourier-transform terahertz spectrometer. **2021**, 262, 117928		6
560	Pretreatment of finger millet straw (Eleusine coracana) for enzymatic hydrolysis towards bioethanol production. 1		
559	Synthesis of barium hexaferrite templated by nanocrystalline cellulose extracted from luffa acutangula fiber. **2021**, 8, 066104		0
558	Wood-derived nanostructured hybrid for efficient flame retarding and electromagnetic shielding. **2021**, 204, 109695		6
557	Cellulose fibers extracted from sesame hull using subcritical water as a pretreatment. **2021**, 14, 103178		2
556	From unavoidable food waste to advanced biomaterials: microfibrilated lignocellulose production by microwave-assisted hydrothermal treatment of cassava peel and almond hull. **2021**, 28, 7687-7705		1

555	Polyurethane Composite Foams Synthesized Using Bio-Polyols and Cellulose Filler. **2021**, 14,	3
554	PU composites based on different types of textile fibers. 002199832110316	2
553	Addition of Various Cellulosic Components to Bacterial Nanocellulose: A Comparison of Surface Qualities and Crystalline Properties. **2021**, 31, 1366-1372	0
552	Evaluating the Potential of Culms from Sugarcane and Energy Cane Varieties Grown in Argentina for Second-Generation Ethanol Production. 1	1
551	Physicochemical properties of absorbent hydrogel polymers in disposable baby diapers. **2021**, 774, 138605	1
550	Tailoring in fungi for next generation cellulase production with special reference to CRISPR/CAS system. 1	2
549	Spin diffusion transfer difference (SDTD) NMR: An advanced method for the characterisation of water structuration within particle networks. **2021**, 594, 217-227	2
548	Spanish Poplar Biomass as a Precursor for Nanocellulose Extraction. **2021**, 11, 6863	7
547	Composites of polystyrene and surface modified cellulose nanocrystals prepared by melt processing. **2021**, 28, 7813-7827	3
546	Pretreatment and acid hydrolysis of Omani Prosopis juliflora wood. **2021**,	
545	Partially carbonized cellulose filter paper as a green adsorbent for the extraction of pesticides from fruit juices. **2021**, 1648, 462220	5
544	Effects of Milling and UV Pretreatment on the Pyrolytic Behavior and Thermal Stability of Softwood and Hardwood. **2021**, 35, 11353-11365	5
543	Impact of cellulose properties on enzymatic degradation by bacterial GH48 enzymes: Structural and mechanistic insights from processive Bacillus licheniformis Cel48B cellulase. **2021**, 264, 118059	2
542	Cellulose induced protein 1 (Cip1) from Trichoderma reesei enhances the enzymatic hydrolysis of pretreated lignocellulose. **2021**, 20, 136	3
541	Photostable transparent wood composite functionalized with an UV-absorber. **2021**, 189, 109600	11
540	Use of Ch□evotte, a Valuable Co-Product of Industrial Hemp Fiber, as Adsorbent for Pollutant Removal. Part I: Chemical, Microscopic, Spectroscopic and Thermogravimetric Characterization of Raw and Modified Samples. **2021**, 26,	3
539	Investigating microcrystalline cellulose crystallinity using Raman spectroscopy. **2021**, 28, 8971-8985	5
538	Fully Bio-Based Elastomer Nanocomposites Comprising Polyfarnesene Reinforced with Plasma-Modified Cellulose Nanocrystals. **2021**, 13,	2

537	Novel PEDOT dispersion by in-situ polymerization based on sulfated nanocellulose. **2021**, 418, 129533		10
536	Surface Modification of Cellulose Nanocrystals with Lactone Monomers via Plasma-Induced Polymerization and Their Application in ABS Nanocomposites. **2021**, 13,		4
535	The effects of chemical and structural factors on the enzymatic saccharification of Eucalyptus sp. samples pre-treated by various technologies. **2021**, 166, 113449		5
534	Reductive Amination Reaction for the Functionalization of Cellulose Nanocrystals. **2021**, 26,		1
533	Comparison of different Vetiver grass pretreatment techniques and their impact on immobilized butanol production by Clostridium beijerinckii TISTR 1461. **2021**, 28, 9117-9134		2
532	Cellulose aerogel micro fibers for drug delivery applications. **2021**, 127, 112196		11
531	Thermal Conductivity of Cellulose Fibers in Different Size Scales and Densities. **2021**, 22, 3800-3809		1
530	Structure and Self-Assembly of Lytic Polysaccharide Monooxygenase-Oxidized Cellulose Nanocrystals. **2021**, 9, 11331-11341		6
529	Nanocellulose for peripheral nerve regeneration in rabbits using citric acid as crosslinker with chitosan and freeze/thawed PVA. **2021**, 16,		0
528	Impregnation of poplar wood with multi-functional composite modifier and induction of in-situ polymerization by heating. **2021**, 41, 220-228		5
527	Valorization of Byproducts of Hemp Multipurpose Crop: Short Non-Aligned Bast Fibers as a Source of Nanocellulose. **2021**, 26,		1
526	Response surface methodology approach to optimize the functionalization process on Agave americana fibre. **2021**, 28, 10065-10075		
525	Effects of heat treatment temperatures on the photostability of Moso bamboo during accelerated UV weathering. 1-11		1
524	Evaluation of the aqueous Fe (II) ion sorption capacity of functionalized microcrystalline cellulose. **2021**, 9, 105703		10
523	The effect of sulfate half-ester groups on cellulose nanocrystal periodate oxidation. **2021**, 28, 9633-9644		1
522	Molecular dynamics of dissolution of a 36-chain cellulose Iβ microfibril at different temperatures above the critical pressure of water. **2021**, 336, 116271		0
521	Biomass-Derived Adsorbent for Dispersive Solid-Phase Extraction of Cr(III), Fe(III), Co(II) and Ni(II) from Food Samples Prior to ICP-MS Detection. **2021**, 11, 7792		0
520	Tailoring renewable materials via plant biotechnology. *Biotechnology for Biofuels*, **2021**, 14, 167	7.8	1

519	A novel approach for pineapple leaf fiber processing as an ultimate fiber using existing machines. **2021**, 7, e07861	3
518	Sustainable preparation of bifunctional cellulose nanocrystals via mixed HSO/formic acid hydrolysis. **2021**, 266, 118107	32
517	Activation of softwood Kraft pulp at high solids content by endoglucanase and lytic polysaccharide monooxygenase. **2021**, 166, 113463	6
516	Determining the Crystallinity Index of Cellulose in Chemically and Mechanically Extracted Banana Fiber for the Synthesis of Nanocellulose. 1-9	4
515	Deconstruction and Reassembly of Renewable Polymers and Biocolloids into Next Generation Structured Materials. **2021**, 121, 14088-14188	23
514	Characteristics of microcrystalline cellulose from nata de coco: Hydrochloric acid versus maleic acid hydrolysis. **2022**, 139, 51576	0
513	Characterization Studies on New Natural Cellulosic Fiber Extracted from the Bark of Erythrina variegata. 1-20	1
512	Sulfation of Diethylaminoethyl-Cellulose: QTAIM Topological Analysis and Experimental and DFT Studies of the Properties. **2021**, 6, 22603-22615	13
511	Biopolymers and composites: Properties, characterization and their applications in food, medical and pharmaceutical industries. **2021**, 9, 105322	27
510	Application of Pickering emulsions in 3D printing of personalized nutrition. Part I: Development of reduced-fat printable casein-based ink. **2021**, 622, 126641	12
509	Perspectives in Nanocellulose for Crude Oil Recovery: A Minireview.	0
508	Fabrication of dual cross-linked spherical treated waste biomass/alginate adsorbent and its potential for efficient removal of lead ions from aqueous solutions. **2021**, 168, 113575	3
507	Isolation and characterization of cellulose nanomaterials from jute bast fibers. **2021**, 9, 106447	5
506	Tensile and flexural properties of Tampico fibres and E-glass fibre composites reinforced with epoxy resin. 146442072110357	
505	Assessing the effect of protic ionic liquid pretreatment of Pinus radiata from different perspectives including solvent-water ratio. 1-13	2
504	Effect of the Micronization of Pulp Fibers on the Properties of Green Composites. **2021**, 26,	4
503	Isolation and Screening of Microorganisms for the Effective Pretreatment of Lignocellulosic Agricultural Wastes. **2021**, 2021, 5514745	1
502	From lignocellulose to plastics: Knowledge transfer on the degradation approaches by fungi. **2021**, 50, 107770	5

501	Dyeing Property Improvement of Madder with Polycarboxylic Acid for Cotton. **2021**, 13,	1
500	Enhancing Electrical Conductivity of Semiconducting MOFs via Defect Healing. **2021**, 3, 4197-4202	2
499	Heterogeneous deacetylation reaction of chitin under low-frequency ultrasonic irradiation. **2021**, 267, 118180	4
498	Impact of trimethylaluminum exposure time on the mechanical properties of single-cycle atomic layer deposition modified cellulosic nanopaper. **2021**, 39, 052407	
497	Microbial Biotextiles for a Circular Materials Economy.	1
496	Nanoscale dynamics of cellulose digestion by the cellobiohydrolase TrCel7A. **2021**, 297, 101029	0
495	A novel decrystallizing protein CxEXL22 from Arthrobotrys sp. CX1 capable of synergistically hydrolyzing cellulose with cellulases. **2021**, 8,	
494	DMSO as an auxiliary solvent in the fabrication of homogeneous chitin-based films obtaining from an ionic liquid process. **2021**, 158, 110681	6
493	Xylan Is Critical for Proper Bundling and Alignment of Cellulose Microfibrils in Plant Secondary Cell Walls. **2021**, 12, 737690	5
492	Characterization of Agro Waste Fiber Extracted from the Stem of Canna Edulis Plant and Its Potential in the Textiles. 1-14	1
491	Response surface methodology-based improvement of the yield and differentiation of properties of bacterial cellulose by metabolic enhancers. **2021**, 187, 584-593	2
490	Opportunities and challenges for flow-through hydrothermal pretreatment in advanced biorefineries. **2022**, 343, 126061	4
489	Stochastic model of lignocellulosic material saccharification. **2021**, 17, e1009262	0
488	Preparation and characterization of cellulose/attapulgite composite aerogels with high strength and hydrophobicity. **2021**, 569, 120922	4
487	Ultra-high-strength composite films prepared from NMMO solutions of bamboo-derived dissolving pulp and chitosan. **2021**, 170, 113747	1
486	Effects of extraction methods on morphology, structure and properties of bamboo cellulose. **2021**, 169, 113640	15
485	Acryloyl-modified cellulose nanocrystals: effects of substitution on crystallinity and copolymerization with acrylic monomers. **2021**, 28, 10875	0
484	Fully bio-based agro-waste soy stem fiber reinforced bio-epoxy composites for lightweight structural applications: Influence of surface modification techniques. **2021**, 303, 124509	12

483	Particle size influence on the composition of sugars in corncob hemicellulose hydrolysate for xylose fermentation by Meyerozyma caribbica. **2021**, 340, 125677	3
482	Thermal annealing of iridescent cellulose nanocrystal films. **2021**, 272, 118468	5
481	The influence of propane and n-butane on the structure and separation performance of cellulose acetate membranes. **2021**, 638, 119677	5
480	Technical difficulties of mixed culture driven waste biomass-based biohydrogen production: Sustainability of current pretreatment techniques and future prospective. **2021**, 151, 111519	0
479	Structural and physico-chemical characterization of industrial hemp hurd: Impacts of chemical pretreatments and mechanical refining. **2021**, 171, 113818	3
478	Insight into morphological, physicochemical and spectroscopic properties of Ɛchitin nanocrystalline structures. **2021**, 273, 118563	0
477	Nanocellulose: A mini-review on types and use in drug delivery systems. **2021**, 2, 100031	19
476	Enhancing Kraft based dissolving pulp production by integrating green liquor neutralization. **2021**, 2, 100034	2
475	Coatable tannic acid-deposited cellulose nanocrystals for Fe(III) sensing and its application to a facile, scalable and portable sensing platform. **2021**, 196, 109732	0
474	Variation of lignocellulosic biomass structure from torrefaction: A critical review. **2021**, 152, 111698	5
473	Colloidal magnesium hydroxide Nanoflake: One-Step Surfactant-Assisted preparation and Paper-Based relics protection with Long-Term Anti-Acidification and Flame-Retardancy. **2022**, 607, 992-1004	3
472	Crystalline polysaccharides: A review. **2022**, 275, 118624	8
471	Extraction of cellulose nanocrystals from areca waste and its application in eco-friendly biocomposite film. **2022**, 287, 132084	11
470	Thermal kinetic analysis of mustard biomass with equiatomic iron-nickel catalyst and its predictive modeling. **2022**, 286, 131901	6
469	Surface-Related Kinetic Models for Anaerobic Digestion of Mi-crocrystalline Cellulose: The Role of Particle Size. **2021**, 14,	
468	Established an eco-friendly cotton fabric treating process with enhancing anti-wrinkle performance. **2021**, 16, 155892502110034	2
467	Micro-FTIR combined with curve fitting method to study cellulose crystallinity of developing cotton fibers. **2021**, 413, 1313-1320	4
466	Amidoxime-functionalized bead cellulose for the decomposition of highly toxic organophosphates.. **2021**, 11, 17976-17984	

465	Polylactic Acid (PLA) Bio-Composite Film Reinforced with Nanocrystalline Cellulose from Napier Fibers. **2021**, 997-1003	
464	Structural characterization of microcrystalline and nanocrystalline cellulose from Ananas comosus L. leaves: Cytocompatibility and molecular docking studies. **2021**, 10, 793-806	4
463	Antimicrobial bacterial cellulose composites as textile materials. **2021**, 513-556	1
462	Effects of temperature and neutralizing agent on lactic acid production by Rhizopus sp. fermentation. **2021**,	
461	A Sequential Autohydrolysis-Ionic Liquid Fractionation Process for High Quality Lignin Production. **2021**, 35, 2293-2302	2
460	Micro/nano-structural evolution in spruce wood during soda pulping. **2021**, 75, 754-764	4
459	Predicting thermal degradation mechanisms in ureaformaldehyde cellulose composites filled with tin particles. **2018**, 39, 4341-4354	1
458	Analysis of transgenic glycoside hydrolases expressed in plants: T. reesei CBH I and A. cellulolyticus EI. **2012**, 908, 197-211	3
457	Cell-free translation of biofuel enzymes. **2014**, 1118, 71-95	17
456	A New Method to Obtain Cellulose Nanofiber from Wood. **2020**, 395-401	1
455	Analyses of Biomass Products by Nuclear Magnetic Resonance Spectroscopy. **2016**, 143-172	5
454	Preparation and Properties of Nanopolysaccharides. **2019**, 1-54	1
453	Cellulose Nanostructures Extracted from Pineapple Fibres. **2020**, 185-234	3
452	Tissue Engineering Applications of Bacterial Cellulose Based Nanofibers. **2020**, 319-346	6
451	Cellulose from the green macroalgae Ulva lactuca: isolation, characterization, optotracing, and production of cellulose nanofibrils. **2020**, 27, 3707-3725	35
450	Improved cellulose X-ray diffraction analysis using Fourier series modeling. **2020**, 27, 5563-5579	53
449	Enzymatic extract of Aspergillus fumigatus CCT 7873 for hydrolysis of sugarcane bagasse and generation of cellulose nanocrystals (CNC). 1	6
448	Polymerization of glycidyl methacrylate from the surface of cellulose nanocrystals for the elaboration of PLA-based nanocomposites. **2020**, 234, 115899	15

447	A facile comparative approach towards utilization of waste cotton lint for the synthesis of nano-crystalline cellulose crystals along with acid recovery. **2018**, 109, 1246-1252	26
446	Novel Single-step Pretreatment of Steam Explosion and Choline Chloride to De-lignify Corn Stover for Enhancing Enzymatic Edibility. **2020**, 94, 273-281	12
445	High enhancement of the hydrolysis rate of cellulose after pretreatment with inorganic salt hydrates. **2020**, 22, 3860-3866	12
444	Rhodosporidium toruloides: A new platform organism for conversion of lignocellulose into terpene biofuels and bioproducts.	1
443	Experimental and Mathematical Optimization of the Peroxide Delignification of Larch Wood in the Presence of MnSO4 Catalyst. **2020**, 12, 265-272	3
442	Extraction and Characterization of Fibres from the Stalk and Spikelets of Empty Fruit Bunch. **2015**, 2015, 1-10	20
441	In-depth studies on the modifying effects of natural ageing on the chemical structure of European spruce (Picea abies) and silver fir (Abies alba) woods. **2020**, 66,	5
440	A review of analytical methods for assessing preservation in waterlogged archaeological wood and their application in practice. **2020**, 8,	17
439	Combined enzymatic and physical deinking methodology for efficient eco-friendly recycling of old newsprint. **2013**, 8, e72346	47
438	DEGRADATION OF PINE WOOD STRUCTURE WHEN OZONOLYTIC DELIGNIFICATION. **2019**, 85-94	3
437	Comparative Optimization of Cellulase and Laccase Enzymes in Deinking Process of Used Newspapers. **2020**, 23, 353-359	2
436	Production of Micro Crystalline Cellulose from Tapioca Solid Waste: Effect of Acid Concentration on its Physico-chemical Properties. **2020**, 23, 147-151	3
435	Study of Acid Treatment Conditions on the Water and Moisture Absorbency of Coconut Coir. **2019**, 10, 5-9	1
434	Preparation and characterization of cellulose and microcrystalline cellulose isolated from waste Leucaena leucocephala seeds. **2017**, 4, 51-58	10
433	Oxidation of Cellulose from Oil Palm Empty Fruit Bunch Using Hydrogen Peroxide in Alkaline Condition. **2018**, 8, 51	4
432	Innovative characterization and mechanical properties of natural cellulosic Coccinia Indica fiber and its composites. **2020**, 62, 61-67	10
431	Study on the Anti-Biodegradation Property of Tunicate Cellulose. **2020**, 12,	3
430	Alkaline-peroxide Treatment for Enzymatic Hydrolysis of Japanese Cypress (Chamaecyparis obtusa). **2013**, 92, 1197-1204	1

429	Changes in moisture exclusion efficiency and crystallinity of thermally modified wood with aging. **2019**, 12, 92-97	12
428	Effects of Ethanol Addition and Biological Pretreatment on Soda Pulping of <i>Eulaliopsis binata</i>. **2016**, 07, 78-90	8
427	Effects of Mechanical Fibrillation on Cellulose Reinforced Poly(Ethylene Oxide). **2015**, 06, 713-723	3
426	Nucleotide and protein researches on anaerobic fungi during four decades. **2020**, 62, 121-140	1
425	Characterization of Electrospun Nanofibers of Cellulose Nanowhisker/Polyvinyl Alcohol Composites. **2012**, 40, 71-77	4
424	Alkanolamines as Dual Functional Solvents for Biomass Deconstruction and Bioenergy Production. **2021**, 23, 8611-8631	1
423	EFFECT OF CO2-ADDED STEAM EXPLOSION ON OIL PALM EMPTY FRUIT BUNCH FOR BIOETHANOL PRODUCTION. **2021**, 55, 839-847	0
422	Regenerated Cellulose Products for Agricultural and Their Potential: A Review. **2021**, 13,	4
421	Nanofibrillated Cellulose Extracted by Enzymatic Hydrolysis Followed by Mechanical Fibrillation. 1-10	
420	Electrochemical synthesis of titanium dioxide nanostructures and its application in the in dye photocatalytic removal. **2021**, 2046, 012041	0
419	Old Corrugated Container (OCC) Cardboard Material: An Alternative Source for Obtaining Microfibrillated Cellulose. 1-13	
418	Evaluation of the Thermal and Morphological Properties of Irradiated Chitosan-Glycerol-Based Polymeric Films. **2021**, 9, 1783	0
417	Consecutive Organosolv and Alkaline Pretreatment: An Efficient Approach toward the Production of Cellulose from Rice Straw. **2021**, 6, 27247-27258	2
416	Application of a Molybdenum Carbide Electrode Enhanced the Biodegradability of Wheat Straw. **2022**, 51, 163	1
415	Comparative evaluation of cellulose nanocrystals from bagasse and coir agro-wastes for reinforcing PVA-based composites. **2021**, 1-22	4
414	The Effect of Water Activation on Chemical Modification of Cellulose and Characterization. **2013**, 14, 977-982	
413	Analytical Methods for Lignocellulosic Biomass Structural Polysaccharides. **2014**, 1-51	
412	Cellulosic Nanocomposites: Functional Vector For Arsenic Remediation. **2014**, 1, 8-15	

411	Cotton Linter Crystallinity Variations Caused by Electron Beam Irradiation and Acid Treatment. **2014**, 46, 37-43	
410	Extracci□n y caracterizaci□n de celulosa y lignina del aserr□n. **2014**, 4, 11	
409	Fundamental Aspects of Textile Fibres. 1-63	
408	Development of Auto-hydrolysis Method for Preparing Cotton Linter Regenerated Fibers of Textile Fabrics. **2015**, 47, 81-88	
407	Alkaline Nanoparticles for the Deacidification and pH Control of Books and Manuscripts. **2016**, 253-281	3
406	Synthesis and Characterization of Hydroxypropylmethyl Cellulose from □Air Particle Vacuum Dust□ **2017**, 20, 23-29	
405	Processing Vegetable Waste □Different Origin. **2018**, 14, 51-66	0
404	Processing Vegetable Waste □Different Origin. **2018**, 14, 48-61	0
403	REGULARITIES OF THE PROCESS OF PINE WOOD PEROXIDE DELIGNIFICATION IN THE PRESENCE OF SULFURIC ACID CATALYST. **2018**, 63-71	3
402	Fuel Ethanol Production From Lignocellulosic Biomass. **2019**, 49-65	3
401	Enzymatic efficacy of some types of Aspergillus fungi isolated from some manuscripts and its effect on some of the physical and chemical properties of the manuscripts. 571, 012043	1
400	The Effect of Mechanical Activation and Lignin Impurities on the Hydrolysis-Dehydration of Cellulose in the Presence of Sibunit-4 Solid Acidic Carbon Catalysts. **2019**, 434-444	1
399	THE NEW METHOD OF OBTAINING MICROFIBRILLATED CELLULOSE FROM SPRUCE WOOD. **2020**, 303-314	
398	Determination of crystallinity of Chinese handmade papers by means of X-ray diffraction. **2020**, 41, 69-86	0
397	Stretching-Induced Thermal Conductivity Change in Shape-Memory Polymer Composites. **2020**, 142,	
396	Influence of Water Removal Techniques on the Main Characteristics of Nanofibrillated Cellulose Obtained from Different Lignocellulosic Materials. 1-16	
395	Synergetic effect of carbon dot at cellulose nanofiber for sustainable metal-free photocatalyst. **2021**, 28, 11261	1
394	Structural and Thermal Properties of Cellulose Microfiber Isolated from Typha Australis by Sequential Alkali-Oxidative Treatment. 1-13	0

393	Characterization of Isolate Reveals New Prospects in Waste Stream Valorization for Bacterial Cellulose Production. **2021**, 9,	0
392	Valorization of Hemp Hurds as Bio-Sourced Additives in PLA-Based Biocomposites. **2021**, 13,	0
391	Evaluation of Methods for the Analysis of Untreated and Processed Lignocellulosic Biomasses. **2020**, 101-117	
390	Composite of polylactic acid and microcellulose from kombucha membranes. **2020**, 21, 015-026	5
389	Formaldehyde from Lignin Acidolysis Might Be Useful for In-Line Control of Industrial Biomass Processing. **2021**, 9, 207-215	1
388	. **2020**, 46, 1330-1336	4
387	Enhancement of methane production by anaerobic digestion of corn straw with hydrogen-nanobubble water. **2022**, 344, 126220	4
386	Manufacture and performance of peanut skin cellulose nanocrystals. **2022**, 79,	0
385	A Kinetic Framework for Microwave-Irradiated Catalytic Conversion of Lignocelluloses to Biofuel Precursors by Employing Protic and Aprotic Ionic Liquids. **2020**, 173-215	
384	Biotechnological Aspects of Microbial Pretreatment of Lignocellulosic Biomass. **2020**, 121-150	2
383	Biomassa lignocelul□sica: estrutura e composi□. **2020**, 9-30	
382	Levoglucosan Production by Fast Pyrolysis of Biomass After Dilute Acid Pretreatment. **2020**, 265-287	
381	Lignocellulosic Biomass. **2020**, 499-535	
380	Lignocellulosics and Their Use in Functional Materials and Nanotechnology. **2020**, 1-16	
379	Physical, Morphological, Structural, Thermal and Mechanical Properties of Pineapple Leaf Fibers. **2020**, 91-121	6
378	Experimental and mathematical optimization of the peroxide delignification of larch in the presence of MnSO4 catalyst. **2020**, 20, 67-75	
377	Mercerization effect on the properties of LDPE/PHB composites reinforced with castor cake. **2020**, 30,	0
376	Hybrids of Cellulose-TiO2 for Environmental Application. **2020**, 14, 93-101	2

375	Development of ritonavir-loaded nanostructured lipid carriers employing quality by design (QbD) as a tool: characterizations, permeability, and bioavailability studies. **2021**, 1	4
374	Oxidation treatment on wood cell walls affects gas permeability and sound absorption capacity. **2022**, 276, 118874	1
373	Chemically modified wool waste keratin for flame retardant cotton finishing. **2021**, 100319	2
372	Methylene blue adsorption onto hydrogels made from different Eucalyptus dissolving pulps. **2022**, 29, 445	1
371	The role of milling time on the morphological and mechanical properties of wood flour and their polypropylene composites. **2020**, 2, 035007	
370	Tensile Properties and Dye Uptake Assessment of Cotton Fabrics Sized with Corn (Zea mays) Starch and Sorghum (Sorghum bicolor) Starch. 49-62	
369	Effect of Immobilization Methods on the Production of Polyethylene-cellulose Biocomposites via Ethylene Polymerization with Metallocene/MAO Catalyst. **2020**, 15, 752-764	
368	Nanocelluloses Reinforced Bio-Waterborne Polyurethane. **2021**, 13,	
367	Mechanistic and kinetic study of the hydrothermal treatment of paunch waste. **2022**, 177, 541-553	0
366	Chemical Characterization of Waterlogged Charred Wood: The Case of a Medieval Shipwreck. **2021**, 12, 1594	1
365	Functionalized Nanocellulose Drives Neural Stem Cells toward Neuronal Differentiation. **2021**, 12,	1
364	Production of bacterial cellulose from glycerol: the current state and perspectives. **2021**, 8,	1
363	Cationic cotton modified by 3-chloro-2-hydroxypropyl trimethyl ammonium chloride for salt-free dyeing with high levelling performance. **2022**, 29, 633	2
362	Fractionation of Birch Wood by Integrating Alkaline-Acid Treatments and Hydrogenation in Ethanol over a Bifunctional Ruthenium Catalyst. **2021**, 11, 1362	4
361	Ammonia Fiber Expansion Combined with White Rot Fungi to Treat Lignocellulose for Cultivation of Mushrooms. **2021**, 6, 31689-31698	0
360	One-pot isolation of nanocellulose using pelagic Sargassum spp. from the Caribbean coastline. 1	0
359	Recent review on synthesis, evaluation, and SWOT analysis of nanostructured cellulose in construction applications. **2021**, 46, 103747	7
358	Isolation of cellulose fibers from wetland reed grass through an integrated subcritical water hydrolysis-pulping-bleaching process. **2021**, 311, 122618	4

357	Facile Post-Carboxymethylation of Cellulose Nanofiber Surfaces for Enhanced Water Dispersibility.. **2021**, 6, 34107-34114	2
356	Choosing the right strategy: cryogrinding vs. ball milling □ comparing apples to apples. **2021**, 23, 9646-9657	2
355	Piezoelectricity of (K,Na)(Nb,Sb)O3-□rZrO3(Bi,Ag)ZrO3 piezoceramics and their application in planar-type actuators. **2021**, 9, 16741-16750	2
354	Removal of both anionic and cationic dyes from wastewater using pH-responsive adsorbents of L-lysine molecular-grafted cellulose porous foams.. **2021**, 426, 128121	0
353	Effectiveness of bio-dispersant in homogenizing hydroxyapatite for proliferation and differentiation of osteoblast.. **2021**, 611, 491-502	1
352	Utilization of Saline Solutions in the Modification of Lignocellulose from Champaca Wood. **2018**, 46, 368-379	2
351	Efficient Saccharification of Wheat Straw Pretreated by Solid Particle-Assisted Ball Milling with Waste Washing Liquor Recycling.	
350	Nanocelluloses Reinforced Bio-Waterborne Polyurethane. **2021**, 13, 2853	4
349	Comprehensive approach of methods for microstructural analysis and analytical tools in lignocellulosic biomass assessment - A Review.. **2021**, 126627	1
348	Bioconversion of Agricultural Residue into Biofuel and High-Value Biochemicals: Recent Advancement. **2022**, 233-268	1
347	Development of Cellulose Nanofibril/Casein-Based 3D Composite Hemostasis Scaffold for Potential Wound-Healing Application.. **2022**,	4
346	Improvement of prebiotic activity of guava pur□ by-products through cellulase treatment. **2022**, 36, 38-57	0
345	Environmentally Significant Cellulose Fiber Reinforced Polymer Matrix Composites. **2022**, 93-132	
344	Influence of drying method on the crystal structure and thermal property of oil palm frond juice-based bacterial cellulose. **2022**, 57, 1462-1473	0
343	Biofibers of papaya tree bast: a statistical study of the mechanical properties for use potential in polymeric composites. **2022**, 687-705	
342	One-pot eco-friendly oxidative synthesis of imine carboxymethyl dialdehyde cellulosic fibers. **2022**, 29, 799-815	1
341	Wide-angle X-ray scattering studies on contemporary and ancient bast fibres used in textiles □ ultrastructural studies on stinging nettle. **2022**, 29, 2645	1
340	Effect of Minor Alloying Elements (C, Ni, Cr, Mo) on the Long-Term Corrosion Behaviors of Ultrahigh-Strength Automotive Steel Sheet in Neutral Aqueous Environment. **2022**, 60, 35-45	0

339	Mechanochemical Pretreatment for Waste-Free Conversion of Bamboo to Simple Sugars: Utilization of Available Resources for Developing Economies. 2100286	1
338	Cellulose nanocrystals from native and mercerized cotton. **2022**, 29, 1567	1
337	Intensification of alkaline delignification of sugarcane bagasse using ultrasound assisted approach.. **2021**, 82, 105870	2
336	Recent Progress in Production Methods for Cellulose Nanocrystals: Leading to More Sustainable Processes. 2100100	0
335	Cavitation Fibrillation of Cellulose Fiber.. **2022**,	1
334	Novel functionalized cellulose derivatives fabricated with Cu nanoparticles: synthesis, characterization and degradation of organic pollutants. **2022**, 29, 1911	0
333	An insight into microscopy and analytical techniques for morphological, structural, chemical, and thermal characterization of cellulose.. **2022**,	1
332	Crystallinity of Nanocellulose and its Application in Polymer Composites: A Short Review. 908, 74-79	
331	Rational Development of a Carrier-Free Dry Powder Inhalation Formulation for Respiratory Viral Infections via Quality by Design: A Drug-Drug Cocrystal of Favipiravir and Theophylline.. **2022**, 14,	0
330	Impact of surfactant-aided subcritical water pretreatment process conditions on the reducing sugar production from oil palm empty fruit bunch. **2022**, 963, 012005	
329	High-pressure autohydrolysis process of wheat straw for cellulose recovery and subsequent use in PBAT composites preparation. **2022**, 39, 102282	2
328	Solvents and ions for pretreatment in lignocellulosic biorefineries. **2022**, 113, 241-257	0
327	The optoelectronic properties and effect of calcium doping on structural and electrical properties of ZO-Ca aerogel nanoparticles. **2022**, 33, 6485	0
326	Study of dielectric properties of electron beam irradiated luffa fiber/PLA composites. 1-14	
325	Evaluation of biomass-derived solvents and protic ionic liquids as lignin-selective pretreatment agents for poplar fractionation. 1-13	1
324	Evaluation of detoxified sugarcane bagasse hydrolysate by atmospheric cold plasma for bacterial cellulose production.. **2022**, 204, 136-143	2
323	Mechanistic investigation of the effect of endoglucanases related to pulp refining.	3
322	Surface modification of the cellulose nanocrystals through vinyl silane grafting.. **2022**, 200, 397-408	1

321	Efficient saccharification of wheat straw pretreated by solid particle-assisted ball milling with waste washing liquor recycling.. **2022**, 347, 126721	1
320	Mesoporous xerogel cellulose composites from biorenewable natural cotton fibers.. **2022**, 282, 119040	2
319	pH-responsive ampholytic regenerated cellulose hydrogel integrated with carrageenan and chitosan. **2022**, 178, 114588	1
318	Toward continuous high-performance bacterial cellulose macrofibers by implementing grading-stretching in spinning.. **2022**, 282, 119133	1
317	A highly sensitive and biodegradable NO2 sensor made with CNTs and Ni(OH)2/NiO:Yb microparticles. **2022**, 903, 163896	0
316	Nanocellulose-Based Biomedical Scaffolds in Future Bioeconomy: A Techno-Legal Assessment of the State-of-the-Art.. **2021**, 9, 789603	0
315	Study on characterization of water hyacinth (Eichhornia crassipes) novel natural fiber as reinforcement with epoxy polymer matrix material for lightweight applications. 152808372110672	
314	Preparation of cationic viscose and its salt-free dyeing using reactive dye.	0
313	Mechanochemical Transformations of Biomass into Functional Materials.. **2022**,	1
312	Sulfated Cellulose Nanofibrils from Chlorosulfonic Acid Treatment and Their Wet Spinning into High-Strength Fibers.. **2022**,	3
311	Non-enzymatic modification of the crystalline structure and chemistry of Masson pine in brown-rot decay.. **2022**, 286, 119242	2
310	Alpha-, Beta- and Gamma-Cellulose Quantification and Two-Stage Concentrated-Dilute Acid Lignin Recovery from Three Rice Husks: Lignin Characterization and Depolymerization. 1	0
309	Elucidating the bioenergy potential of raw, hydrothermally carbonized and torrefied waste Arundo donax biomass in terms of physicochemical characterization, kinetic and thermodynamic parameters. **2022**, 187, 844-856	0
308	A Comprehensive Review on Natural Fibers: Technological and Socio-Economical Aspects.. **2021**, 13,	7
307	A Clean and Effective Extrusion Corncob Pretreatment for Enhancement of High Solids Loading Enzymatic Hydrolysis for Sugar Productio N.	
306	Materials Properties: Physical Characteristics. **2022**, 59-95	
305	Hemp-Based Materials for Applications in Wastewater Treatment by Biosorption-Oriented Processes: A Review. **2022**, 239-295	1
304	Preparation and characterization of silk fibroin-polyvinyl alcohol (PVA) blend films for food packaging materials. **2022**, 55, 194-200	1

303	Hydrothermal pretreatment of biomass-waste-garlic skins in the cellulose nanofiber production process. **2022**, 29, 2333-2349	0
302	Tracing characteristic variations of cellulose nanocrystals during the post-synthesis purification process. 1	
301	Surface-Functionalized Cellulose Nanocrystals as Nanofillers for Crosslinking Processes: Implications for Thermosetting Resins. **2022**, 5, 1891-1901	1
300	Direct synthesis of a robust cellulosic composite from cellulose acetate and a nanofibrillated bacterial cellulose sol.	1
299	"Attacking-Attacking" Anti-biofouling Strategy Enabled by Cellulose Nanocrystals-Silver Materials.. **2022**,	3
298	Production of Exopolysaccharides by Cultivation of Halotolerant Bacillus atrophaeus BU4 in Glucose- and Xylose-Based Synthetic Media and in Hydrolysates of Quinoa Stalks. **2022**, 8, 79	
297	Soybean hull pectin and nanocellulose: tack properties in aqueous pMDI dispersions. **2022**, 57, 5022-5035	1
296	Structural Evolution of Cellulose from Bamboo Fibers and Parenchyma Cells during Ionic Liquid Pretreatment for Enhanced Hydrolysis.. **2022**,	2
295	Alkali-activation of cellulose nanofibrils to facilitate surface chemical modification under aqueous conditions. **2022**, 68,	0
294	Physico-Chemical and Thermomechanical Analysis and ?Characterization of ?a Thermoplastic Composite Material Reinforced by Washingtonia Filifera Novel Vegetable Fibers. 59, 43-55	0
293	A novel accessory protein ArCel5 from cellulose-gelatinizing fungus Arthrobotrys sp. CX1. **2022**, 9,	0
292	Nanocellulose for Sustainable Water Purification.. **2022**,	6
291	CRISPR/Cas9-mediated P-CR Domain-specific Engineering of CESA4 Heterodimerization Capacity Alters Cell Wall Architecture and Improves Saccharification Efficiency in Poplar.. **2022**,	1
290	Circular Hazelnut Protection by Lignocellulosic Waste Valorization for Nanopesticides Development. **2022**, 12, 2604	3
289	Fractionation of birch wood biomass into valuable chemicals by the extraction and catalytic processes. 1	0
288	Solid State NMR a Powerful Technique for Investigating Sustainable/Renewable Cellulose-Based Materials.. **2022**, 14,	2
287	Cellulose Nanocrystals from Sugar Cane Bagasse Using Organic and/or Inorganic Acids: Techno-Economic Analysis and Life Cycle Assessment.	4
286	Nanocellulose by Ammonium Persulfate Oxidation: An Alternative to TEMPO-Mediated Oxidation. **2022**, 10, 3882-3891	1

285	Stretch-Induced Crystallization of Cellulose Spun from Ionic Liquid Solution.. **2022**,	1
284	A Wearable Strain Sensor Based on Electroconductive Hydrogel Composites for Human Motion Detection. 2100973	0
283	Pretreatment enhanced structural disruption, enzymatic hydrolysis, fermentative hydrogen production from rice straw. **2022**, 47, 11778-11786	2
282	Comparative Study on the Pretreatment of Aspen and Maple With 1-Ethyl-3-methylimidazolium Acetate and Cholinium Lysinate. **2022**, 10,	0
281	Effects of multiscale-mechanical fragmentation on techno-functional properties of industrial tobacco waste. **2022**, 117327	0
280	Effect of Ball-Milling Pretreatment of Cellulose on Its Photoreforming for H Production.. **2022**, 10, 4862-4871	4
279	Ammonium persulfate treatment on carbohydrate polymers and lignin of wood improved sound absorption capacity.. **2022**,	0
278	Structure-property-degradability relationships of varisized lignocellulosic biomass induced by ball milling on enzymatic hydrolysis and alcoholysis.. **2022**, 15, 36	1
277	Thermal and mechanical characterization of adobes bio-sourced with Pennisetum setaceum fibers and an application for modern buildings. **2022**, 326, 126809	4
276	Radiation-induced graft polymerization of N-isopropyl acrylamide onto microcrystalline cellulose: Assessing the efficiency of the peroxidation method. **2022**, 194, 110038	0
275	Silicone polyether surfactant enhances bacterial cellulose synthesis and water holding capacity.. **2022**, 208, 642-653	1
274	Comparative study on the hydrogenolysis performance of solid residues from different bamboo pretreatments.. **2022**, 352, 127095	0
273	Cellulose nanostructures obtained using enzymatic cocktails with different compositions.. **2022**, 207, 299-307	1
272	When the order matters: Impacts of lignin removal and xylan conformation on the physical structure and enzymatic hydrolysis of sugarcane bagasse. **2022**, 180, 114708	0
271	Cellulose electrospinning from ionic liquids: The effects of ionic liquid removal on the fiber morphology.. **2022**, 285, 119260	1
270	Cellulose nanofibers prepared from pulp through ultrasound treatment followed semi-dry esterification and their application for transparent and anti-fingerprint coating. **2022**, 167, 106844	
269	Pretreatment methods to enhance solubilization and anaerobic biodegradability of lignocellulosic biomass (wheat straw): Progress and challenges. **2022**, 319, 123726	3
268	Cryogenic grinding of cotton fiber cellulose: The effect on physicochemical properties.. **2022**, 289, 119408	0

267	Enhancing Persistent Luminescence of Cellulose by Dehydration for Label-Free Time-Resolved Imaging. **2021**, 9, 17420-17426	1
266	Dynamics of Water and Other Molecular Liquids Confined Within Voids and on Surface of Lignin Aggregates in Aging Bio Crude Oils.. **2021**, 9, 753958	0
265	Advance on the pyrolytic transformation of cellulose. **2021**, 49, 1733-1752	1
264	Factors That Affect the Mechanical Strength of Archaeological Wood-A Case Study of 18th-Century Wooden Water Pipes from B□□icza Street in Pozna□Poland.. **2021**, 14,	
263	Preparation, Characterization and Application of Amorphized Cellulose-A Review.. **2021**, 13,	0
262	Highly Stretchable Bacterial Cellulose Produced by SI1.. **2021**, 13,	0
261	Nanocellulose Hybrid Lignin Complex Reinforces Cellulose to Form a Strong, Water-Stable Lignin-Cellulose Composite Usable as a Plastic Replacement.. **2021**, 11,	0
260	HETEROGENEOUS CATALYTIC FRACTIONATION OF BIRCH-WOOD BIOMASS INTO MICROCRYSTALLINE CELLULOSE, XYLOSE AND ENTEROSORBENTS. **2021**, 105-118	
259	Building an Extensible Cell Wall.. **2022**,	7
258	The Influence of High-Intensity Ultrasonication on Properties of Cellulose Produced from the Hop Stems, the Byproduct of the Hop Cones Production.. **2022**, 27,	0
257	Beyond Crystallinity: Using Raman Spectroscopic Methods to Further Define Aggregated/Supramolecular Structure of Cellulose. **2022**, 10,	
256	Bioconversion of Terephthalic Acid and Ethylene Glycol Into Bacterial Cellulose by DSM 2004 and DSM 46604.. **2022**, 10, 853322	0
255	Optimization of synergistic degradation of steam exploded corn straw by lytic polysaccharide monooxygenase R17L and cellulase. **2022**, 182, 114924	0
254	Data_Sheet_1.docx. **2020**,	
253	Image_1.TIF. **2019**,	
252	Image_2.TIF. **2019**,	
251	Image_3.TIF. **2019**,	
250	Table_1.docx. **2019**,	

249	Table_1.docx. **2019**,	
248	Nanostructured Temperature Indicator for Cold Chain Logistics.. **2022**,	2
247	Nitro-Oxidation Process for Fabrication of Efficient Bioadsorbent from Lignocellulosic Biomass by Combined Liquid-Gas Phase Treatment.	
246	Value-Added Utilization of Wheat Straw: From Cellulose and Cellulose Nanofiber to All-Cellulose Nanocomposite Film. **2022**, 12, 475	2
245	Experimental investigation on mechanical, thermal behaviour and characterisation analysis of aquatic waste water hyacinth plant fibre, powder and ash reinforced polymer composite material Dangerous aquatic threat into successive product approach. 095440622210861	
244	Extraction and Characterization of Cellulose from Agricultural By-Products of Chiang Rai Province, Thailand.. **2022**, 14,	4
243	Effect of Crystalline Structure on the Catalytic Hydrolysis of Cellulose in Subcritical Water. **2022**, 10, 5859-5866	0
242	Liquid Systems Based on Tetra(-butyl)phosphonium Acetate for the Non-dissolving Pretreatment of a Microcrystalline Cellulose (Avicel PH-101).. **2022**,	
241	An Overview of Extrusion as a Pretreatment Method of Lignocellulosic Biomass. **2022**, 15, 3002	0
240	Extraction and Characterization of Natural Cellulosic Fiber from Taraxacum Sect. Ruderalia. 1-9	0
239	An Innovative Preparation, Characterization, and Optimization of Nanocellulose Fibers (NCF) Using Ultrasonic Waves. **2022**, 14, 1930	
238	Effects of Deep Eutectic Solvents on cellulosic fibres and paper properties: Green hemical refining. **2022**, 119606	0
237	Fluorescent Imaging of Extracellular Fungal Enzymes Bound onto Plant Cell Walls.. **2022**, 23,	
236	Cellulose Nanocrystal Aqueous Colloidal Suspensions: Evidence of Density Inversion at the Isotropic-liquid Crystal Phase Transition.. **2022**, e2108227	1
235	Recovery of cellulose and lignin from Eucalyptus by-product and assessment of cellulose enzymatic hydrolysis. **2022**,	0
234	Biomaterial and biocompatibility evaluation of tunicate nanocellulose for tissue engineering. **2022**, 137, 212828	
233	Pretreatment of lignocellulosic feedstocks for cellulose nanofibril production. 1	1
232	Disk-shaped cellulose fibers from red algae, Eucheuma cottonii and its use for high oxygen barrier.. **2022**,	0

231	Investigation of the interphase structure in polyamide 6□matrix, multi-scale composites. **2022**, 225, 109489	0
230	Morphological, UV blocking, and antimicrobial features of multifunctional cotton fibers coated with ZnO/Cu via sonochemistry. **2022**, 286, 126210	0
229	Stability of the Cellic CTec2 enzymatic preparation immobilized onto magnetic graphene oxide: Assessment of hydrolysis of pretreated sugarcane bagasse. **2022**, 183, 114972	0
228	Evolution of the ultrastructure and polysaccharide composition of flax fibres over time: When history meets science. **2022**, 291, 119584	1
227	Synthesis of high quality boehmite and □-alumina for phosphorus removal from water works sludge by extraction and hydrothermal treatment.. **2022**, 113448	0
226	Inherent characteristics of the hygroscopicity of fiber and parenchyma of bamboo.	0
225	Comparative study on material properties of wood-ash alkali and commercial alkali treated Sterculia fiber.	1
224	X-ray Diffraction Data on the Bacterial Nanocellulose Synthesized by Komagataeibacter xylinus □-2429 and □-2431 Microbial Producers in Miscanthus- and Oat Hull-Derived Enzymatic Hydrolyzates. **2022**, 67, 391-397	0
223	Advanced sampling, sample preparation and combination of methods applicable in analysis of compounds in aged and deacidified papers. A minireview. **2022**,	
222	Nitro-oxidation process for fabrication of efficient bioadsorbent from lignocellulosic biomass by combined liquid-gas phase treatment. **2022**, 3, 100219	
221	Enhanced production of levoglucosenone from pretreatment assisted catalytic pyrolysis of waste paper. **2022**, 165, 105567	0
220	The alleviation of lignin inhibition on enzymatic hydrolysis of cellulose by changing its ultrastructure. **2022**, 185, 115108	0
219	Efficient preparation of cellulose nanocrystals with a high yield through simultaneous acidolysis with a heat□moisture treatment. **2022**, 391, 133285	0
218	Impact of Alkali Impregnation on Physicochemical Properties of Macro-Scale Sugarcane Bagasse.	
217	Microbial Nanocellulose Biotextiles for a Circular Materials Economy.	0
216	The effect of polymer grafting on the mechanical properties of PEG -grafted cellulose nanocrystals in poly(lactic acid).	1
215	Effects of ammonium persulfate on coconut wood (Cocos nucifera L .) cellulose, hemicellulose, and lignin polymers: Improved sound absorption capacity.	0
214	Lessons From Insect Fungiculture: From Microbial Ecology to Plastics Degradation. **2022**, 13,	0

213	Fabrication and characterization of a novel Ba2+-loaded sawdust biochar doped with iron oxide for the super-adsorption of SO42− from wastewater. **2022**, 135233	0
212	DiPoly (DIFFRACTION ANALYSIS OF POLYMERS): A SOFTWARE FOR THE BIOPOLYMERS TESTING USING POWDER DIFFRACTION DATA. **2022**, 63, 642-646	
211	Cellulose Microfibers Isolated from Yucca Leaves: Structural, Chemical, and Thermal Properties. 1-11	0
210	Valorization of brewer's spent grain by consecutive supercritical carbon dioxide extraction and enzymatic hydrolysis. **2022**, 133493	2
209	Rice straw structure changes following green pretreatment with petha wastewater for economically viable bioethanol production. **2022**, 12,	0
208	Fabrication and Characterization of Functionalized Multi-Wall Carbon Nanotubes Flexible Network Modified by a Layer of Polypyrrole Conductive Polymer and Metallic Nanoparticles. 36, 21-33	
207	Metal/acid bifunctional catalysts for the reductive catalytic fractionation of lignocellulose into phenols and holocellulose. **2022**, 108085	0
206	Valorization of paper mill sludge using protic ionic liquids and deep eutectic solvents as a potential feedstock for biorefineries. 1-12	1
205	A strategy of co-fermentation of distillers dried grains with solubles (DDGS) and lignocellulosic feedstocks as swine feed. 1-15	1
204	Characterization of mono-diacylglycerols, cellulose nanocrystals, polypropylene, and supporting materials as raw materials for synthesis of antistatic bionanocomposites. **2022**, 1034, 012009	
203	Prediction of the equilibrium moisture content based on the chemical composition and crystallinity of natural fibres. **2022**, 186, 115187	0
202	Highly functional bio-based micro- and nano-structured materials for neodymium recovery. **2022**, 447, 137418	0
201	Investigation of Rheological Behaviors of Aqueous Gum Arabic in the Presence of Crystalline Nanocellulose.	
200	Microbial resources for bioconversion of lignocellulose to ethanol. **2022**, 237-268	
199	Upcycling Cotton Textile Waste into Bio-Based Building Blocks Through an Environmentally Friendly and High-Yield Conversion Process.	0
198	IS MERCERIZATION THE ONLY FACTOR FOR (PARTIAL) POLYMORPHIC TRANSITION OF CELLULOSE I TO CELLULOSE II IN CELLULOSE NANOCRYSTALS?. **2022**, 56, 495-507	1
197	Modification of Cellulose Nanocrystals as Antibacterial Nanofillers to Fabricate Rechargeable Nanocomposite Films for Active Packaging. **2022**, 10, 9265-9274	0
196	A Simple Techno-Economic Assessment for Scaling-Up the Enzymatic Hydrolysis of MSW Pulp. 10,	0

195	"LABORATORY SCALE PRODUCTION OF HYDROXYPROPYLMETHYLCELLULOSE (HPMC) IN A GAS-TIGHT REACTOR UNDER PRESSURE AND ITS APPLICATION IN CEMENT PASTE". **2022**, 56, 517-530	
194	Effect of incorporating iron II disulfide to poly(3-hexylthiophene-2,5-diyl) on its physicochemical properties and influence in photovoltaic devices.	
193	Treating lignocellulosic biomass with dilute solutions at ambient temperature: effects on cellulose crystallinity.	0
192	Characteristics of crystalline and amorphous fractions of date-pits as treated by alcohol-water pressure cooking. **2022**, 100331	0
191	Bacterial cellulose production from acerola industrial waste using isolated kombucha strain.	0
190	A CP/MAS 13C NMR investigation of cellulose ultrastructure in traditional Chinese handmade papers. **2022**,	
189	Ultrasonic Processing of Food Waste to Generate Value-Added Products. **2022**, 11, 2035	1
188	A Review of Properties of Nanocellulose, Its Synthesis, and Potential in Biomedical Applications. **2022**, 12, 7090	2
187	Preparation of an Active Dressing by In Situ Biosynthesis of a Bacterial Cellulose□raphene Oxide Composite. **2022**, 14, 2864	2
186	Plastic Waste Valorization by Leveraging Multidisciplinary Catalytic Technologies. 9307-9324	4
185	Two-step activated carbon cloth enhances microbial interactions and methane production during anaerobic digestion of municipal sludge. **2022**, 196, 366-374	0
184	Cellulose nanocrystals-reinforced core-shell hydrogels for sustained release of fertilizer and water retention. **2022**, 216, 24-31	1
183	Improving enzymatic saccharification of corn stover via thioglycolic acid-mediated Fenton pretreatment. **2022**, 365, 132804	
182	Cellulose interactions with CO2 in NaOH(aq): The (un)expected coagulation creates potential in cellulose technology. **2022**, 294, 119771	1
181	Comparative observation of the flow behavior of low- and high-temperature ashes of biomass. **2022**, 327, 125232	0
180	Hydroxyapatite from Natural Sources for Medical Applications. **2022**, 15, 5091	2
179	Foldable and Recyclable Iontronic Cellulose Nanopaper for Low-Power Paper Electronics. 2200177	2
178	Influence of sulfation pretreatment on the structure and properties of cellulose nanofibrils. **2022**, 187, 115391	0

177	Thermal insulation potential of wood-cereal straws/plaster composite. **2022**, 17, e01353	2
176	??????????????????. **2022**,	0
175	Alkalization of Kraft Pulps from Pine and Eucalyptus and Its Effect on Enzymatic Saccharification and Viscosity Control of Cellulose. **2022**, 14, 3127	1
174	Characterisation of Elementary Kenaf Fibres Extracted Using HNO3 and H2O2/CH3COOH. **2022**, 10, 63	0
173	Study of Characterization of Activated Carbon from Coconut Shells on Various Particle Scales as Filler Agent in Composite Materials. **2022**, 50, 256-271	0
172	Extraction of Chitin from Green Crab Shells by Mechanochemistry and Aging.	2
171	Measurement of the Crystallinity Index of High-Purity Quartz at Various Stages of Separation and Study of Its Structure by X-Ray Diffraction and Electron Backscatter Diffraction. **2022**, 16, 484-489	
170	Production and Characterization of Bacterial Cellulose Separators for Nickel-Zinc Batteries. **2022**, 15, 5727	0
169	X-Ray Scattering Reveals Two Mechanisms of Cellulose Microfibril Degradation by Filamentous Fungi.	
168	Characterization of exopolysaccharide derived from Enterobacter ludwigii and its possible role as an emulsifier. **2022**, 12,	
167	Recycling different textile wastes for methane production: Morphological and microstructural changes and microbial community dynamics. **2022**, 151, 154-162	0
166	High performance and sustainable CNF membrane via facile in-situ envelopment of hydrochar for water treatment. **2022**, 296, 119948	0
165	Preparation and characterization of cellulose fibers from Meghatyrsus maximus: Applications in its chemical derivatives. **2022**, 296, 119918	0
164	Facile and green synthesis of nanocellulose with the assistance of ultraviolet light irradiation for high-performance quasi-solid-state zinc-ion batteries. **2022**, 628, 1-9	0
163	Hydrophobization of lignocellulosic materials part II: chemical modification.	1
162	Pyrolysis mechanism of natural fiber in cement-based composites at high temperatures. **2022**, 351, 128986	1
161	Leaves from four different sugarcane varieties as potential renewable feedstocks for second-generation ethanol production: Pretreatments, chemical composition, physical structure, and enzymatic hydrolysis yields. **2022**, 45, 102485	0
160	Assessment of cellulose interactions with water by ssNMR: 1H->13C transfer kinetics revisited. **2022**, 298, 120104	0

159	Investigation of rheological behaviors of aqueous gum Arabic in the presence of crystalline nanocellulose. **2022**, 4, 100243	0
158	Water-stable, strong, biodegradable lignocellulose straws replacement for plastic straws. **2023**, 451, 138970	1
157	Hierarchical˝Structures of Carboxymethyl˝Cellulose Nanofiber˝Hydrogels Formed Byfreeze˝Cross-Linking.	0
156	Understanding the Influences of Poplar Recalcitrance During Combinatorial Pretreatment on Ethanol Production.	0
155	Recalcitrance of Lignocellulosic Biomass and Pretreatment Technologies: A Comprehensive Insight. **2022**, 13-52	0
154	In Situ Growth of Cofs within Wood Microchannels for Wastewater Treatment and Oil-Water Separation.	0
153	Enzymatic production of xylooligosaccharides from corn cobs: Assessment of two different pretreatment strategies. **2023**, 299, 120174	0
152	Characterization of raw and alkali-treated cellulosic fibers extracted from Borassus flabellifer L..	0
151	Bacterial Cellulose as a Versatile Biomaterial for Wound Dressing Application. **2022**, 27, 5580	3
150	Control of Electron Pathway in in-situ Synthesized Carbon Dot@Cellulose Nanofiber with Stable Solid-state Emission. **2022**, 23, 2132-2138	0
149	Material Properties of Traditional Handmade Paper Samples Fabricated from Cellulosic Fiber of Lokta Bushes. **2022**, 7, 32717-32726	0
148	Solution Casting of Cellulose Acetate films. Influence of Surface Substrate and Humidity on Wettability, Morphology and Optical Properties.	0
147	Effect of Impregnation with Natural Shellac Polymer on the Mechanical Properties of Fast-Growing Chinese Fir. **2022**, 14, 3871	0
146	PrMem: Novel flexible biodegradable paper-graphene oxide-based memristor.	0
145	Cellulose Nanocrystals-Incorporated Thermosensitive Hydrogel for Controlled Release, 3D Printing, and Breast Cancer Treatment Applications. **2022**, 14, 42812-42826	0
144	Artificial Intelligence-Aided Low Cost and Flexible Graphene Oxide-Based Paper Sensor for Ultraviolet and Sunlight Monitoring. **2022**, 17,	0
143	Physico-chemical characterization of Grewia Monticola Sond (GMS) fibers for prospective application in biocomposites. 1-15	1
142	Qualitative and Quantitative Correlation of Microstructural Properties and In Vitro Glucose Adsorption and Diffusion Behaviors of Pea Insoluble Dietary Fiber Induced by Ultrafine Grinding. **2022**, 11, 2814	0

141	Anaerobic Co-Digestion of Wastes: Reviewing Current Status and Approaches for Enhancing Biogas Production. **2022**, 12, 8884	1
140	Extraction of Carboxylated Nanocellulose by Combining Mechanochemistry and NADES. **2022**, 10, 13017-13025	0
139	Renewable Schiff-Base Ionic Liquids for Lignocellulosic Biomass Pretreatment. **2022**, 27, 6278	1
138	Effect of hydrolysis time, pH and surfactant type on stability of hydrochloric acid hydrolyzed nanocellulose. **2022**,	0
137	In situ growth of COFs within wood microchannels for wastewater treatment and oil-water separation. **2022**, 122275	1
136	A residue-free and effective corncob extrusion pretreatment for the enhancement of high solids loading enzymatic hydrolysis to produce sugars. **2022**, 188, 115655	2
135	Microscopic structural changes during the freeze cross-linking reaction in carboxymethyl cellulose nanofiber hydrogels. **2022**, 4, 100251	0
134	Molecular and structural impacts of fungal depolymerization of corn stover to reduce pretreatment severity.	0
133	High lignin-containing nanocelluloses prepared via TEMPO-mediated oxidation and polyethylenimine functionalization for antioxidant and antibacterial applications. **2022**, 12, 30030-30040	0
132	Waste Clothes to Microcrystalline Cellulose: An Experimental Investigation.	0
131	Effect of Microwave Plasma Pre-Treatment on Cotton Cellulose Dissolution. **2022**, 27, 7007	0
130	Functionalized Cellulose Nanocrystals as Active Reinforcements for Light-Actuated 3D-Printed Structures.	2
129	The effects of sequential hydrothermal-mechanical refining pretreatment on cellulose structure changes and sugar recoveries.	0
128	Effect of heat-set temperature on the crease recovery behavior of cotton fabric dip-coated with shape memory polyurethane. **2022**, 126952	0
127	Mechanical Amorphization of Chitosan with Different Molecular Weights. **2022**, 14, 4438	1
126	Nanocellulose: Native State, Production, and Characterization. **2023**, 1-39	0
125	Extraction of Cellulosic Filler from Artocarpus heterophyllus (Jackfruit) as a Reinforcement Material for Polymer Composites.	1
124	Fully bio-based supramolecular gel based on cellulose nanowhisker gallate by cyclodextrin host-guest chemistry. **2023**, 299, 120222	0

123	Selection of protic ionic liquids for the improved production of butanol from rice straw. **2023**, 333, 126386	1
122	Design and synthesis of SO3H-functionalized acidic ionic liquids for catalytic conversion of wheat straw to ethyl levulinate. **2023**, 333, 126284	1
121	Upcycling cotton textile waste into bio-based building blocks through an environmentally friendly and high-yield conversion process. **2023**, 189, 106715	0
120	Effects of Biochar and Nitrogen Application on Rice Biomass Saccharification, Bioethanol Yield and Cell Wall Polymers Features. **2022**, 23, 13635	0
119	Optimization of bacterial cellulose production from alcohol lees by intermittent feeding strategy.	0
118	Reductive Catalytic Fractionation of Spruce Wood over Ru/C Bifunctional Catalyst in the Medium of Ethanol and Molecular Hydrogen. **2022**, 12, 1384	2
117	Low energy and solvent free technique for the development of nanocellulose based bioplastic from banana pseudostem juice. **2022**, 4, 100261	0
116	Thermochemical characterization of post-phytoremediated vetiver (Vetiveria zizanioides (L.) Nash) root and shoot for their prospective bioenergy potential. **2023**, 191, 115964	0
115	Microwave-assisted esterification of bleached and unbleached cellulose nanofibers. **2023**, 191, 115970	0
114	Synthesis of pine needle cyanoethyl cellulose using Taguchi L25 orthogonal array. **2023**, 191, 115973	0
113	Nata de fique: A cost-effective alternative for the large-scale production of bacterial nanocellulose. **2023**, 192, 116015	1
112	Influence of cellulose ultrastructure on the catalytic pyrolysis for selective production of levoglucosenone. **2023**, 192, 116072	0
111	Production and characterization of cellulose nanocrystals of different allomorphs from oil palm empty fruit bunches for enhancing composite interlaminar fracture toughness. **2023**, 5, 100272	0
110	Modification of Nias Cacao Pod Husk Cellulose through Carboxymethylation Stages by Using MAOS Method and Its Application as Li-ion Batteries Biopolymer Electrolyte Membrane**. **2022**, 7,	0
109	Use of Fourier Series in X-ray Diffraction (XRD) Analysis and Fourier-Transform Infrared Spectroscopy (FTIR) for Estimation of Crystallinity in Cellulose from Different Sources. **2022**, 14, 5199	1
108	Modification of Physio-Mechanical Properties of Chitosan-Based Films via Physical Treatment Approach. **2022**, 14, 5216	0
107	Effect of stem structural characteristics and cell wall components related to stem lodging resistance in a newly identified mutant of hexaploid wheat (Triticum aestivum L.). 13,	0
106	Highly mesoporous and compressible sugarcane aerogel via top-down nanotechnology as effective and reusable oil absorbents.	0

105	Bleaching cotton in textile conservation: a closer look using atomic force microscopy. **2022**, 10,	0
104	PU Foams Resistance Against Natural Weathering Aging: The Effect of Coffee Husk Residues in Different Contents.	0
103	The Relationship between Structural Features of Lignocellulosic Materials and Ethanol Production Yield. **2022**, 6, 119	0
102	A Petrochemical-Free Route to Superelastic Hierarchical Cellulose Aerogel.	1
101	Birch wood biorefinery into microcrystalline, microfibrillated, and nanocrystalline celluloses, xylose, and adsorbents.	1
100	A New Insight into the Composition and Physical Characteristics of Corncob Substantiating Its Potential for Tailored Biorefinery Objectives. **2022**, 8, 704	2
99	Degradation of Chemical Components of Thermally Modified Robinia pseudoacacia L. Wood and Its Effect on the Change in Mechanical Properties. **2022**, 23, 15652	0
98	Rapid Fabrication of Pineapple Leaf Fibers from Discarded Leaves by Using Electrolysis of Brine. **2023**, 3, 1-10	0
97	Chitosan and HPMCAS double-coating as protective systems for alginate microparticles loaded with Ctx(Ile21)-Ha antimicrobial peptide to prevent intestinal infections. **2022**, 121978	1
96	Bacterial Cellulose Production by Komagateibacter xylinus with the Use of Enzyme-Degraded Oligo- and Polysaccharides as the Substrates. **2022**, 12, 12673	0
95	A Petrochemical-Free Route to Superelastic Hierarchical Cellulose Aerogel.	0
94	Ultrasonic irradiation as a mild and efficient protocol for the demineralization of chitin from shrimp shell wastes. **2023**, 43, 359-368	0
93	Multiscale micromechanics modeling of plant fibers: upscaling of stiffness and elastic limits from cellulose nanofibrils to technical fibers. **2023**, 56,	0
92	Variation in the hierarchical structure of lignin-blended cellulose precursor fibers. **2023**, 225, 1555-1561	0
91	Agricultural Lignocellulosic Waste to Biofuels. **2023**, 205-247	0
90	Grafting of poly(stearyl acrylate) on cellulose fibers as 3D-printable HDPE composites.	0
89	Hydrophilic modification of cellulose using sulfamic acid for optical fiber humidity sensor fabrication.	0
88	Preparation of porous microcrystalline cellulose from mezcal industry agave bagasse by low reagent loading sequential chemical treatment.	0

87	Solution casting of cellulose acetate films: influence of surface substrate and humidity on wettability, morphology and optical properties.	0
86	Cellulose nanofibril production by the combined use of four mechanical fibrillation processes with different destructuration effects.	0
85	Bacterial nanocellulose production using Cantaloupe juice, statistical optimization and characterization. **2023**, 13,	0
84	Extraction and Physico-Chemical Characterization of Pineapple Crown Leaf Fibers (PCLF). **2023**, 11, 5	0
83	Physical, Static, and Kinetic Analysis of the Electrochemical Deposition Process for the Recovery of Heavy Metal from Industrial Wastewater. **2023**, 2023, 1-8	0
82	Endo-Exoglucanase Synergism for Cellulose Nanofibril Production Assessment and Characterization. **2023**, 28, 948	0
81	Delignification of Palm Oil Empty Fruit Bunch by ozonization and its physicochemical effect.	0
80	Bacterial Cellulose-Based Blends and Composites: Versatile Biomaterials for Tissue Engineering Applications. **2023**, 24, 986	1
79	Characterization of Elementary Industrial Hemp (Cannabis Sativa L.) Fiber and Its Fabric. **2023**, 20,	0
78	An integrated hydrothermal process of bamboo flattening, densification and drying: Mechanical properties and strengthening mechanisms. **2023**, 226, 111610	0
77	A cascade valorization of Kenaf stalk for the preparation of lignin sunscreens and papermaking. **2023**, 230, 123122	0
76	Iodine removal efficiently from wastewater by magnetic Fe3O4 incorporated within activated porous cellulose. **2023**, 193, 116201	0
75	Understanding the influences of poplar recalcitrance during combinatorial pretreatment on ethanol production. **2023**, 242, 107636	0
74	Construction of compostable packaging with antibacterial property and improved performance using sprayed coatings of modified cellulose nanocrystals. **2023**, 305, 120539	0
73	Characterization of new natural cellulosic fibers from Cyperus compactus Retz. (Cyperaceae) Plant. **2023**, 5, 100286	0
72	Cellulose-based films with internal plasticization with epoxidized soybean oil.	0
71	Photocatalytic H2 production from water splitting employing depolymerized cellulose through LiCl activation as sacrificial agent. **2022**,	0
70	Bioplastic Floss of a Novel Microwave-Thermospun Shellac: Synthesis and Bleaching for Some Dental Applications. **2023**, 15, 142	0

69	Heterogeneous Catalytic Fractionation of Birch-Wood Biomass into a Microcrystalline Cellulose, Xylose and Enterosorbents. **2022**, 48, 1476-1485	0
68	Opportunities and challenges for the production of fuels and chemicals: materials and processes for biorefineries. **2023**, 551-620	0
67	Isolation and characterization of nanocellulose from selected hardwoods, viz., Eucalyptus tereticornis Sm. and Casuarina equisetifolia L., by steam explosion method. **2023**, 13,	0
66	Bacterial Cellulose-Based Materials as Dressings for Wound Healing. **2023**, 15, 424	0
65	Strong, Shape-Memory Lignocellulosic Aerogel via Wood Cell Wall Nanoscale Reassembly.	0
64	Impact of alkali impregnation on physicochemical properties of macro-scale sugarcane bagasse.	0
63	Convenient Cross-Linking Control of Lignin-Based Polymers Influencing Structure□Property Relationships. **2023**, 11, 1709-1719	0
62	Extraction and characterization of cellulosic fibers from the stem of papaya tree (Carica papaya L.). **2023**, 243-265	0
61	Chemically and Physically Pretreated Straw in Moderate Conditions: Poor Correlation between Biogas Production and Commonly Used Biomass Characterization. **2023**, 16, 1146	0
60	Sustainable Valorization of Wood Residue for the Production of Biofuel Materials Via Continuous Flow Hydrothermal Liquefaction.	0
59	Nanocellulose-Based Biomaterial Ink Hydrogel for Uptake/Release of Bovine Serum Albumin. **2023**, 15, 837	0
58	Induced Piezoelectricity in Cotton-Based Composites for Energy-Harvesting Applications.	0
57	Green electrolyte host based on synthesized benzoyl kappa-carrageenan: Reduced hydrophilicity and improved conductivity. **2023**, 16, 104687	0
56	Mild isolation and characterization of surface lignin from hydrothermally pretreated lignocellulosic forestry and agro-industrial waste biomass. **2023**, 33, 101056	0
55	Steam explosion improves extractability, antioxidant activity and □glucosidase inhibitory activity of the constituents of Java tea (Clerodendranthus spicatus). **2023**, 86, 103350	0
54	Insights on butyl levulinate bio-blendstock: From model sugars to paper mill waste cellulose as feedstocks for a sustainable catalytic butanolysis process. **2023**, 418, 114054	0
53	Edible hydrogels with shrinkage tolerance in acids and stomach-friendly mechanical moduli. **2023**, 32, 101786	0
52	The crystalline structure transition and hydrogen bonds shift determining enhanced enzymatic digestibility of cellulose treated by ultrasonication. **2023**, 876, 162631	0

51	A computational study of cellulose regeneration: All-atom molecular dynamics simulations. **2023**, 311, 120768	0
50	Green solid-liquid extraction of cactus (Opuntia ficus-indica) cladode dietary fibers. I- optimization, pilot-scale production, and characterization. **2023**, 670, 115139	0
49	Electrospun PVA membranes reinforced with cellulose nanocrystals and thermally reduced graphene oxide: Thermal, mechanical and UV-protection properties. **2023**, 197, 116614	0
48	Enhancing cellulosic digestibility of wheat straw by adding sodium lignosulfonate and sodium hydroxide to hydrothermal pretreatment. **2023**, 379, 129058	0
47	Microwave assisted alkali pretreatment of fruit peel wastes for enzymatic hydrolysis. **2017**, 87,	0
46	GO-Enabled Bacterial Cellulose Membranes by Multistep, In Situ Loading: Effect of Bacterial Strain and Loading Pattern on Nanocomposite Properties. **2023**, 16, 1296	0
45	Low viscosity versus high viscosity PMMA bone cement for total joint arthroplasty: Influence of glass transition temperature, residual monomer content, transmittance of chemical functional groups, and crystallinity index on quasi-static flexural strength. **2023**, 10, 100176	0
44	Revealing the roles of biomass components in the biosorption of heavy metals in wastewater by various chemically treated hemp stalks. **2023**, 143, 104701	0
43	Cetylpyridinium chloride cationic finishing improves the dyeing and antibacterial properties of madder dyed cotton.	0
42	High-pressure microwave-assisted pretreatment of softwood, hardwood and non-wood biomass using different solvents in the production of cellulosic ethanol. **2023**, 16,	0
41	Modification of Cotton and Leather Surfaces Using Cold Atmospheric Pressure Plasma and TiO2-SiO2-Reduced Graphene Oxide Nanopowders. **2023**, 16, 1397	0
40	Corncob-derived nanocellulose-supported palladium nanoparticles towards catalytic reduction of 4-nitrophenol. **2023**,	0
39	Application of Thermochemical Method to Determine the Crystallinity Degree of Cellulose Materials. **2023**, 13, 2387	0
38	Evolution of the Cellulose Microfibril through Gamma-Valerolactone-Assisted Co-Solvent and Enzymatic Hydrolysis. **2023**, 11, 3270-3283	0
37	Microfibrillated Cellulose with a Lower Degree of Polymerization; Synthesis via Sulfuric Acid Hydrolysis under Ultrasonic Treatment. **2023**, 15, 904	1
36	Aislamiento de nanocelulosa 2D a partir de la pared celular de Sargassum spp. **2023**, 11, 19-27	0
35	Evaluation of porous bacterial cellulose produced from foam templating with different additives and its application in 3D cell culture. **2023**, 234, 123680	0
34	Using environmentally friendly technology for fabricating special plywood with ultra-high strength. **2023**, 396, 136462	0

33	Reductive Catalytic Fractionation of Abies Wood into Bioliquids and Cellulose with Hydrogen in an Ethanol Medium over NiCuMo/SiO2 Catalyst. **2023**, 13, 413	0
32	Materials for Biocompatible Piezoelectric Devices. **2023**, 180-198	0
31	Application of TOPSIS algorithm in describing bacterial cellulose-based composite hydrogel performance in incorporating methylene blue as a model drug. **2023**, 13,	0
30	Effect of Nano-Clay and Jute Varieties on the Structural, Mechanical, and Thermal Properties of Polyester Composite. **2023**, 20,	0
29	Purification and Characterization of a Low Molecular Weight Neutral Non-Starch Polysaccharide from <i>Panax ginsen</i>g by Enzymatic Hydrolysis. **2023**, 70-79	0
28	Bactericidal Properties of Natural Fibers Hybrid Functionalized with ZnO/Cu2+ and ZnO/Cu0. **2023**, 24, 959-973	0
27	Recovery of the Structure, Characteristics, and Application of Thermal Drying-Deteriorated Cellulose Fibers. **2023**, 11, 3841-3849	0
26	A Comparative Study of Mechanism and Performance of Anionic and Cationic Dialdehyde Nanocelluloses for Dye Adsorption and Separation. **2023**, 8, 8634-8649	1
25	Sulfation of Birch Wood Microcrystalline Cellulose with Sulfamic Acid Using Ion-Exchange Resins as Catalysts. **2023**, 15, 1116	0
24	Solvent-Assisted Adsorption of Cellulose on a Carbon Catalyst as a Pretreatment Method for Hydrolysis to Glucose. **2023**, 5, 381-392	0
23	Citrated cellulose nanocrystals from post-consumer cotton textiles. **2023**, 11, 6854-6868	0
22	Pretreatments as a key for enzymatic hydrolysis of lignocellulosic biomass. **2023**, 109-137	0
21	Characterizations of Rice Bran Nanofibers Produced by Enzymatic Treatment and Their Role in Stabilizing Oil-in-Water Pickering Emulsions.	0
20	The transformations of cellulose after concentrated sulfuric acid treatment and its impact on the enzymatic saccharification. **2023**, 16,	0
19	Kinetics of water sorption in single Sterculia and Bauhinia fibers at ambient temperature. **2023**, 5, 100872	0
18	Effect of food industry by-products on bacterial cellulose production and its structural properties.	0
17	Cellulose as sacrificial agents for enhanced photoactivated hydrogen production. **2023**, 7, 1981-1991	0
16	Review on Optical Methods Used to Characterize the Linear Birefringence of Polymer Materials for Various Applications. **2023**, 28, 2955	0

15	The Effect of Cellulose Crystalline Structure Modification on Glucose Production from Chemical-Composition-Controlled Biomass. **2023**, 15, 5869	0
14	Grazing-incidence diffraction reveals cellulose and pectin organization in hydrated plant primary cell wall. **2023**, 13,	0
13	Boron Adsorption Kinetics of Microcrystalline Cellulose and Polymer Resin. **2023**, 39, 5384-5395	0
12	Pulping and papermaking using pineapple leaves. **2023**, 233-243	0
11	Eucalyptus bleached kraft pulp-ionic liquid inks for 3D printing of ionogels and hydrogels. **2023**, 313, 120897	0
10	Extraction and Characterization of a New Natural Cellulosic Fiber from Bark of Ficus Carica Plant as Potential Reinforcement for Polymer Composites. **2023**, 20,	0
9	Effect of cellulose-based fillers on vulcanized natural rubber.	0
8	Morphologies and properties of lignocellulose fiber extracted from Typha leaves with potential for composite applications. 1-10	0
7	Isolation of cellulose microfibers and nanofibers by mechanical fibrillation in a water-free solvent.	0
6	Wearable Cellulosic Textile Electrodes with High Washability Based on Silver Nanowires to Capture Electrocardiogram.	0
5	CHEMO-MECHANICAL EXTRACTION AND CHARACTERIZATION OF SAYOTE (SECHIUM EDULE) FIBERS AT VARYING FIBER MATURITY. **2023**, 57, 29-36	0
4	Composite magnetic properties of cobalt ferrite nanoparticles embedded in bacterial nanocellulose of different porosity levels. **2023**, 303, 127798	0
3	Gelatin□hitosan□ellulose nanocrystals as an acellular scaffold for wound healing application: fabrication, characterisation and cytocompatibility towards primary human skin cells. **2023**, 30, 5071-5092	0
2	Experimental investigations on material properties of alkali retted Pinus Roxburghii Fiber.	0
1	Carbohydrate nanotubes production and its techno-economic validation. **2023**, 22, 101460	0