Lucian A Lucia

List of Publications by Citations

249 papers	8,759 citations	36 h-index	88 g-index
265 ext. papers	9,960 ext. citations	4.9 avg, IF	6.57 L-index

#	Paper	IF	Citations
249	Cellulose nanocrystals: chemistry, self-assembly, and applications. *Chemical Reviews*, **2010**, 110, 3479-5008	48.1	3892
248	One-pot polymerization, surface grafting, and processing of waterborne polyurethane-cellulose nanocrystal nanocomposites. *Journal of Materials Chemistry*, **2009**, 19, 7137		255
247	Toward a better understanding of the lignin isolation process from wood. *Journal of Agricultural and Food Chemistry*, **2006**, 54, 5939-47	5.7	182
246	Comparative evaluation of three lignin isolation protocols for various wood species. *Journal of Agricultural and Food Chemistry*, **2006**, 54, 9696-705	5.7	174
245	Cellulose and nanocellulose-based flexible-hybrid printed electronics and conductive composites - A review. *Carbohydrate Polymers*, **2018**, 198, 249-260	10.3	101
244	Hydrothermal Carbonization of Corncob Residues for Hydrochar Production. *Energy & Fuels*, **2015**, 29, 872-876	4.1	95
243	Laccase-immobilized bacterial cellulose/TiO2 functionalized composite membranes: Evaluation for photo- and bio-catalytic dye degradation. *Journal of Membrane Science*, **2017**, 525, 89-98	9.6	85
242	On the propensity of lignin to associate: a size exclusion chromatography study with lignin derivatives isolated from different plant species. *Phytochemistry*, **2007**, 68, 2570-83	4	76
241	Fabrication, characteristics and applications of carbon materials with different morphologies and porous structures produced from wood liquefaction: A review. *Chemical Engineering Journal*, **2019**, 364, 226-243	14.7	75
240	Cellulose nanocrystals/cellulose core-in-shell nanocomposite assemblies. *Langmuir*, **2009**, 25, 13250-7	4	74
239	Propensity of lignin to associate: light scattering photometry study with native lignins. *Biomacromolecules*, **2008**, 9, 3362-9	6.9	74
238	A one-pot biosynthesis of reduced graphene oxide (RGO)/bacterial cellulose (BC) nanocomposites. *Green Chemistry*, **2014**, 16, 3195-3201	10	73
237	Soy protein□anocellulose composite aerogels. *Cellulose*, **2013**, 20, 2417-2426	5.5	71
236	The enhanced mechanical properties of a covalently bound chitosan-multiwalled carbon nanotube nanocomposite. *Journal of Applied Polymer Science*, **2009**, 113, 466-472	2.9	65
235	Deep Eutectic Solvents (DESs) for the Isolation of Willow Lignin (Salix matsudana cv. Zhuliu). *International Journal of Molecular Sciences*, **2017**, 18,	6.3	64
234	Chemicals and energy from biomass. *Canadian Journal of Chemistry*, **2006**, 84, 960-970	0.9	63
233	General Spectroscopic Protocol to Obtain the Concentration of the Superoxide Anion Radical. *Industrial & Engineering Chemistry Research*, **2009**, 48, 9331-9334	3.9	60

232	On the surface interactions of proteins with lignin. *ACS Applied Materials & Interfaces*, **2013**, 5, 199-206	9.5	58
231	Intrinsic parameters for the synthesis and tuned properties of amphiphilic chitosan drug delivery nanocarriers. *Journal of Controlled Release*, **2017**, 260, 213-225	11.7	56
230	A novel fabrication of monodisperse melamine–formaldehyde resin microspheres to adsorb lead (II). *Chemical Engineering Journal*, **2016**, 288, 745-757	14.7	54
229	A fundamental investigation of the microarchitecture and mechanical properties of tempo-oxidized nanofibrillated cellulose (NFC)-based aerogels. *Cellulose*, **2012**, 19, 1945-1956	5.5	54
228	Enhanced Aggregation Behavior of Antimony(V) Porphyrins in Polyfluorinated Surfactant/Clay Hybrid Microenvironment. *Journal of Physical Chemistry B*, **2003**, 107, 3789-3797	3.4	54
227	Carboxyl Groups in Wood Fibers. 1. Determination of Carboxyl Groups by Headspace Gas Chromatography. *Industrial & Engineering Chemistry Research*, **2003**, 42, 5440-5444	3.9	52
226	Effects of hardwood structural and chemical characteristics on enzymatic hydrolysis for biofuel production. *Bioresource Technology*, **2012**, 110, 232-8	11	51
225	Green Modification of Surface Characteristics of Cellulosic Materials at the Molecular or Nano Scale: A Review. *BioResources*, **2015**, 10,	1.3	50
224	Nanocellulose-based multilayer barrier coatings for gas, oil, and grease resistance. *Carbohydrate Polymers*, **2019**, 206, 281-288	10.3	50
223	Chemical and spatial differentiation of syringyl and guaiacyl lignins in poplar wood via time-of-flight secondary ion mass spectrometry. *Analytical Chemistry*, **2011**, 83, 7020-6	7.8	49
222	Synthesis of soy protein–lignin nanofibers by solution electrospinning. *Reactive and Functional Polymers*, **2014**, 85, 221-227	4.6	46
221	A Novel Cellulose Nanocrystals-Based Approach To Improve the Mechanical Properties of Recycled Paper. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 1584-1592	8.3	45
220	Nature-Inspired Liquid Infused Systems for Superwettable Surface Energies. *ACS Applied Materials & Interfaces*, **2019**, 11, 21275-21293	9.5	41
219	Oxygen Delignification Chemistry and Its Impact on Pulp Fibers. *Journal of Wood Chemistry and Technology*, **2003**, 23, 13-29	2	40
218	Consequences of the nanoporosity of cellulosic fibers on their streaming potential and their interactions with cationic polyelectrolytes. *Cellulose*, **2007**, 14, 655-671	5.5	39
217	A Fiber-Aligned Thermal-Managed Wood-Based Superhydrophobic Aerogel for Efficient Oil Recovery. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 16428-16439	8.3	38
216	Isolation and characterization of lignins from Eucalyptus grandis Hill ex Maiden and Eucalyptus globulus Labill. by enzymatic mild acidolysis (EMAL). *Holzforschung*, **2008**, 62, 24-30	2	38
215	Understanding the pyrolysis of CCA-treated wood: Part I. Effect of metal ions. *Journal of Analytical and Applied Pyrolysis*, **2008**, 81, 60-64	6	38

214	Polymerization topochemistry of cellulose nanocrystals: a function of surface dehydration control. *Langmuir*, **2014**, 30, 14670-9	4	37
213	Water-wettable polypropylene fibers by facile surface treatment based on soy proteins. *ACS Applied Materials & Interfaces*, **2013**, 5, 6541-8	9.5	35
212	Novel preparation and characterization of cellulose microparticles functionalized in ionic liquids. *Langmuir*, **2009**, 25, 10116-20	4	35
211	Intramolecular Energy Transfer to trans-Stilbene *Journal of Physical Chemistry A*, **1998**, 102, 5577-5584	2.8	35
210	A comparison of the pyrolysis behavior of selected -O-4 type lignin model compounds. *Journal of Analytical and Applied Pyrolysis*, **2017**, 125, 185-192	6	34
209	Quantitative 31P NMR detection of oxygen-centered and carbon-centered radical species. *Bioorganic and Medicinal Chemistry*, **2006**, 14, 4017-28	3.4	34
208	Metal to ligand charge transfer photochemistry of Re(I)-alkyl complexes. *Inorganica Chimica Acta*, **1993**, 208, 103-106	2.7	34
207	Copper nanoparticles-sputtered bacterial cellulose nanocomposites displaying enhanced electromagnetic shielding, thermal, conduction, and mechanical properties. *Cellulose*, **2016**, 23, 3117-3127	5.5	33
206	The influence of the chemical and structural features of xylan on the physical properties of its derived hydrogels. *Soft Matter*, **2011**, 7, 1090-1099	3.6	33
205	Improving the physical and chemical functionality of starch-derived films with biopolymers. *Journal of Applied Polymer Science*, **2006**, 100, 2542-2548	2.9	33
204	Fluorine-based surface decorated cellulose nanocrystals as potential hydrophobic and oleophobic materials. *Cellulose*, **2015**, 22, 397-406	5.5	32
203	Hydrogel-Based Sensor Networks: Compositions, Properties, and Applications-A Review.. *ACS Applied Bio Materials*, **2021**, 4, 140-162	4.1	32
202	Outer Sphere Metal-to-Ligand Charge Transfer in Organometallic Ion Pairs. *Inorganic Chemistry*, **1997**, 36, 6224-6234	5.1	31
201	An environmentally benign approach to achieving vectorial alignment and high microporosity in bacterial cellulose/chitosan scaffolds. *RSC Advances*, **2017**, 7, 13678-13688	3.7	30
200	Adsorption of Chemically Modified Xylans on Eucalyptus Pulp and Its Effect on the Pulp Physical Properties. *Industrial & Engineering Chemistry Research*, **2011**, 50, 1138-1145	3.9	30
199	Metal-based bacterial cellulose of sandwich nanomaterials for anti-oxidation electromagnetic interference shielding. *Materials and Design*, **2016**, 112, 374-382	8.1	30
198	Unique thermo-responsivity and tunable optical performance of poly(N-isopropylacrylamide)-cellulose nanocrystal hydrogel films. *Carbohydrate Polymers*, **2019**, 208, 495-503	10.3	30
197	Kinetic modeling of formic acid pulping of bagasse. *Journal of Agricultural and Food Chemistry*, **2008** , 56, 3097-101	5.7	29

196	Highly tunable bioadhesion and optics of 3D printable PNIPAm/cellulose nanofibrils hydrogels. *Carbohydrate Polymers*, **2020**, 234, 115898	10.3	28
195	The non-trivial role of native xylans on the preparation of TEMPO-oxidized cellulose nanofibrils. *Reactive and Functional Polymers*, **2014**, 85, 142-150	4.6	28
194	C-C Bond Fragmentation as a Probe for Photoinduced Intramolecular Electron Transfer. *The Journal of Physical Chemistry*, **1995**, 99, 1961-1968		27
193	High-Strength Antibacterial Chitosan-Cellulose Nanocrystal Composite Tissue Paper. *Langmuir*, **2019**, 35, 104-112	4	27
192	Two Schiff-base fluorescence probes based on triazole and benzotriazole for selective detection of Zn2+. *Sensors and Actuators B: Chemical*, **2016**, 227, 296-303	8.5	26
191	Characterization of Lignin Extracted from Willow by Deep Eutectic Solvent Treatments. *Polymers*, **2018**, 10,	4.5	26
190	The structural changes of lignin and lignin–carbohydrate complexes in corn stover induced by mild sodium hydroxide treatment. *RSC Advances*, **2014**, 4, 10845	3.7	26
189	Influence of Natural Biomaterials on the Absorbency and Transparency of Starch-Derived Films: An Optimization Study. *Industrial & Engineering Chemistry Research*, **2007**, 46, 6480-6485	3.9	26
188	Laccase immobilized on PAN/O-MMT composite nanofibers support for substrate bioremediation: a de novo adsorption and biocatalytic synergy. *RSC Advances*, **2016**, 6, 41420-41427	3.7	26
187	Physical Study of the Primary and Secondary Photothermal Events in Gold/Cellulose Nanocrystals (AuNP/CNC) Nanocomposites Embedded in PVA Matrices. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 1601-1609	8.3	25
186	Synthesis, characterization, and evaluation of chitosan-complexed starch nanoparticles on the physical properties of recycled paper furnish. *ACS Applied Materials & Interfaces*, **2013**, 5, 11029-37	9.5	25
185	Alkali extraction of hemicellulose from depithed corn stover and effects on soda-AQ pulping. *BioResources*, **2011**, 6, 196-206	1.3	25
184	Understanding shape and morphology of unusual tubular starch nanocrystals. *Carbohydrate Polymers*, **2016**, 151, 666-675	10.3	24
183	The influence of lignin–carbohydrate complexes on the cellulase-mediated saccharification I: Transgenic black cottonwood (western balsam poplar, California poplar) P. trichocarpa including the xylan down-regulated and the lignin down-regulated lines. *Fuel*, **2014**, 119, 207-213	7.1	24
182	Active Tara Gum/PVA Blend Films with Curcumin-Loaded CTAC Brush-TEMPO-Oxidized Cellulose Nanocrystals. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 8926-8934	8.3	24
181	Highly flexible, transparent, and conductive silver nanowire-attached bacterial cellulose conductors. *Cellulose*, **2018**, 25, 3189-3196	5.5	23
180	High performance nanocellulose-based composite coatings for oil and grease resistance. *Cellulose*, **2018**, 25, 3377-3391	5.5	23
179	Magnetic Cu0.5Co0.5Fe2O4 ferrite nanoparticles immobilized in situ on the surfaces of cellulose nanocrystals. *Cellulose*, **2015**, 22, 2571-2587	5.5	23

178	Investigation of the Chemical Basis for Inefficient Lignin Removal in Softwood Kraft Pulp during Oxygen Delignification. *Industrial & Engineering Chemistry Research*, **2003**, 42, 4269-4276	3.9	23
177	Capillary flooding of wood with microemulsions from Winsor I systems. *Journal of Colloid and Interface Science*, **2012**, 381, 171-9	9.3	22
176	A New Class of Biobased Paper Dry Strength Agents: Synthesis and Characterization of Soy-Based Polymers. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 524-532	8.3	22
175	Products and Functional Group Distributions in Pyrolysis Oil of Chromated Copper Arsenate (CCA)-Treated Wood, as Elucidated by Gas Chromatography and a Novel 31P NMR-Based Method. *Industrial & Engineering Chemistry Research*, **2007**, 46, 5258-5264	3.9	22
174	Direct Observation of Ultrafast C-C Bond Fragmentation in a Diamine Radical Cation. *The Journal of Physical Chemistry*, **1995**, 99, 11801-11804		22
173	Soy Protein-Based Polyelectrolyte Complexes as Biobased Wood Fiber Dry Strength Agents. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 2267-2274	8.3	21
172	Adsorption of glycinin and ╫conglycinin on silica and cellulose: surface interactions as a function of denaturation, pH, and electrolytes. *Biomacromolecules*, **2012**, 13, 387-96	6.9	21
171	Spectral Monitoring of the Formation and Degradation of Polysulfide Ions in Alkaline Conditions. *Industrial & Engineering Chemistry Research*, **2006**, 45, 7388-7392	3.9	21
170	Novel visualization studies of lignocellulosic oxidation chemistry by application of C-near edge X-ray absorption fine structure spectroscopy. *Cellulose*, **2005**, 12, 35-41	5.5	21
169	Direct observation of carbon-carbon bond fragmentation in .alpha.-amino alcohol radical cations. *The Journal of Physical Chemistry*, **1993**, 97, 9078-9080		21
168	The role of heteropolysaccharides in developing oxidized cellulose nanofibrils. *Carbohydrate Polymers*, **2016**, 144, 187-95	10.3	20
167	Understanding the pyrolysis of CCA-treated wood. *Journal of Analytical and Applied Pyrolysis*, **2008**, 82, 140-144	6	20
166	Photophysics of Tungsten and Molybdenum Arylcarbyne Complexes. Observation of the Lowest Excited State by Laser Flash Photolysis. *Inorganic Chemistry*, **1996**, 35, 7769-7775	5.1	20
165	Highly stretchable and bio-based sensors for sensitive strain detection of angular displacements. *Cellulose*, **2019**, 26, 3401-3413	5.5	20
164	New insights into the material chemistry of polycaprolactone-grafted cellulose nanofibrils/polyurethane nanocomposites. *Cellulose*, **2016**, 23, 2457-2473	5.5	19
163	RAFT synthesis of cellulose-g-polymethylmethacrylate copolymer in an ionic liquid. *Journal of Applied Polymer Science*, **2013**, 127, 4840-4849	2.9	19
162	Pseudo-Janus Zn/Al-based nanocomposites for Cr(VI) sorption/remediation and evolved photocatalytic functionality. *Chemical Engineering Journal*, **2015**, 277, 150-158	14.7	18
161	Preparation and Characterization of Activated Carbon from Hydrochar by Phosphoric Acid Activation and its Adsorption Performance in Prehydrolysis Liquor. *BioResources*, **2017**, 12,	1.3	18

160	Mechanistic Investigation of Rice Straw Lignin Subunit Bond Cleavages and Subsequent Formation of Monophenols. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 430-437	8.3	18
159	Quantitative Analyses of Lignin Hydrothermolysates from Subcritical Water and Water□Ethanol Systems. *Industrial & Engineering Chemistry Research*, **2014**, 53, 10328-10334	3.9	18
158	Insights into the Potential of Hardwood Kraft Lignin to Be a Green Platform Material for Emergence of the Biorefinery. *Polymers*, **2020**, 12,	4.5	18
157	Tuning the Morphology of Microparticles from Spray Drying of Cellulose Nanocrystal Suspensions by Hydrophobic Lignin. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 5376-5384	8.3	17
156	Graft polymerization of □caprolactone to cellulose nanocrystals and optimization of grafting conditions utilizing a response surface methodology. *Nordic Pulp and Paper Research Journal*, **2014**, 29, 58-68	1.1	17
155	New Insights into Lignin Modification During Chlorine Dioxide Bleaching Sequences (I): Chlorine Dioxide Delignification. *Journal of Wood Chemistry and Technology*, **2005**, 24, 201-219	2	17
154	Investigation of the photo-oxidative chemistry of acetylated softwood lignin. *Journal of Photochemistry and Photobiology A: Chemistry*, **2004**, 163, 215-221	4.7	17
153	Innovating Generation of Nanocellulose from Industrial Hemp by Dual Asymmetric Centrifugation. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 1850-1858	8.3	17
152	Unique Dual Functions for Carbon Dots in Emulsion Preparations: Costabilization and Fluorescence Probing. *Langmuir*, **2015**, 31, 9537-45	4	16
151	Titanium Dioxide Catalyzed Photodegradation of Lignin in Industrial Effluents. *Industrial & Engineering Chemistry Research*, **2004**, 43, 7996-8000	3.9	16
150	Photooxidation of a Conjugated Diene by an Exciplex Mechanism: Amplification via Radical Chain Reactions in the Perylene Diimide-Photosensitized Oxidation of □Terpinene. *Journal of Physical Chemistry A*, **1998**, 102, 9095-9098	2.8	16
149	Synthesis and Characterization of Alkali Lignin-based Hydrogels from Ionic Liquids. *BioResources*, **2017**, 12,	1.3	15
148	A simple method to tune the gross antibacterial activity of cellulosic biomaterials. *Carbohydrate Polymers*, **2007**, 69, 805-810	10.3	14
147	Fiber nanotechnology: a new platform for □green□esearch and technological innovations. *Cellulose* , **2007**, 14, 539-542	5.5	14
146	Influence of Natural Biomaterials on the Elastic Properties of Starch-Derived Films: An Optimization Study. *Industrial & Engineering Chemistry Research*, **2006**, 45, 627-633	3.9	14
145	Novel all-cellulose composite displaying aligned cellulose nanofibers reinforced with cellulose nanocrystals. *Tappi Journal*, **2011**, 10, 19-25	0.5	14
144	Crustacean shell-based biosorption water remediation platforms: Status and perspectives. *Journal of Environmental Management*, **2019**, 231, 757-762	7.9	14
143	Lipase-catalyzed laurate esterification of cellulose nanocrystals and their use as reinforcement in PLA composites. *Cellulose*, **2020**, 27, 6263-6273	5.5	13

142	Structural reconstruction strategies for the design of cellulose nanomaterials and aligned wood cellulose-based functional materials - A review. *Carbohydrate Polymers*, **2020**, 247, 116722	10.3	13
141	Reinforcement Effects of Inorganic Nanoparticles for Double-Network Hydrogels. *Macromolecular Materials and Engineering*, **2015**, 300, 1290-1299	3.9	13
140	Lignin: Functional Biomaterial with Potential in Surface Chemistry and Nanoscience **2009**, 173-205		13
139	New insights into the fundamental nature of lignocellulosic fiber surface charge. *Journal of Colloid and Interface Science*, **2004**, 275, 392-7	9.3	13
138	Stabilization of chitosan-based polyelectrolyte nanoparticle cargo delivery biomaterials by a multiple ionic cross-linking strategy. *Carbohydrate Polymers*, **2020**, 231, 115709	10.3	13
137	Super Stable and Tough Hydrogel Containing Covalent, Crystalline, and Ionic Cross-Links. *Macromolecular Chemistry and Physics*, **2016**, 217, 32-38	2.6	13
136	Bioengineering tunable porosity in bacterial nanocellulose matrices. *Soft Matter*, **2019**, 15, 9359-9367	3.6	13
135	The morphology, self-assembly, and host-guest properties of cellulose nanocrystals surface grafted with cholesterol. *Carbohydrate Polymers*, **2020**, 233, 115840	10.3	12
134	Near-Infrared Spectroscopy and Chemometric Analysis for Determining Oxygen Delignification Yield. *Journal of Wood Chemistry and Technology*, **2008**, 28, 122-136	2	12
133	Development of a Highly Efficient Pretreatment Sequence for the Enzymatic Saccharification of Loblolly Pine Wood. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 3669-3678	8.3	12
132	Acid-generated soy protein hydrolysates and their interfacial behavior on model surfaces. *Biomacromolecules*, **2014**, 15, 4336-42	6.9	11
131	Adsorption of cationized eucalyptus heteropolysaccharides onto chemical and mechanical pulp fibers. *Carbohydrate Polymers*, **2015**, 123, 324-30	10.3	11
130	Survey of soy protein flour as a novel dry strength agent for papermaking furnishes. *Journal of Agricultural and Food Chemistry*, **2012**, 60, 9828-33	5.7	11
129	Comparative Evaluation of Oxygen Delignification Processes for Low- and High-Lignin-Content Softwood Kraft Pulps. *Industrial & Engineering Chemistry Research*, **2002**, 41, 5171-5180	3.9	11
128	The Topochemistry of Cellulose Nanofibrils as a Function of Mechanical Generation Energy. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 1471-1478	8.3	11
127	Modeling pyrolytic behavior of pre-oxidized lignin using four representative β-ether-type lignin-like model polymers. *Fuel Processing Technology*, **2018**, 176, 221-229	7.2	11
126	Bentonite-supported nanoscale zero-valent iron granulated electrodes for industrial wastewater remediation. *RSC Advances*, **2017**, 7, 44605-44613	3.7	10
125	Quantitative Molecular Structure−Pyrolytic Energy Correlation for Hardwood Lignins. *Energy & Fuels*, **2012**, 26, 1315-1322	4.1	10

124	Cooperative Electron Transfer Fragmentation Reactions. Amplification of a Photoreaction through A Tandem Chain Fragmentation of Acceptor and Donor Pinacols. *Journal of the American Chemical Society*, **1998**, 120, 439-440	16.4	10
123	Photoinduced Charge Separation Promoted by Ring Opening of a Piperazine Radical Cation. *Journal of the American Chemical Society*, **1996**, 118, 3057-3058	16.4	10
122	Cage escape yields for photoinduced bimolecular electron transfer reactions of Re(I) complexes. *Inorganica Chimica Acta*, **1994**, 225, 41-49	2.7	10
121	Cholesterol-modified lignin: A new avenue for green nanoparticles, meltable materials, and drug delivery. *Colloids and Surfaces B: Biointerfaces*, **2020**, 186, 110685	6	10
120	Supercritical Water-induced Lignin Decomposition Reactions: A Structural and Quantitative Study. *BioResources*, **2016**, 11,	1.3	10
119	In situ 3D bacterial cellulose/nitrogen-doped graphene oxide quantum dot-based membrane fluorescent probes for aggregation-induced detection of iron ions. *Cellulose*, **2019**, 26, 6073-6086	5.5	9
118	Modeling the pyrolytic behavior of lignin through two representative monomers: Vanillin and acetovanillone. *Journal of Analytical and Applied Pyrolysis*, **2018**, 130, 241-248	6	9
117	Catalysis of Glucose to 5-Hydroxymethylfurfural using Sn-Beta Zeolites and a Brønsted Acid in Biphasic Systems. *BioResources*, **2015**, 10,	1.3	9
116	Chemicals, Materials, and Energy from Biomass: A Review. *ACS Symposium Series*, **2007**, 2-30	0.4	9
115	New Insights into Lignin Modification during Chlorine Dioxide Bleaching Sequences (III): The Impact of Modifications in the (EO) versus E Stage on the D1 Stage. *Journal of Wood Chemistry and Technology*, **2005**, 25, 133-147	2	9
114	Ecofriendly and innovative processing of hemp hurds fibers for tissue and towel paper. *BioResources*, **2020**, 15, 706-720	1.3	9
113	Informal STEM education will accelerate the bioeconomy. *Nature Biotechnology*, **2019**, 37, 103-104	44.5	9
112	Hydrothermal-Controlled Conversion of Black Liquor Acid Sediment Directly to Phenolics. *Energy & Fuels*, **2017**, 31, 1638-1643	4.1	8
111	Remarkable Physical and Thermal Properties of Hydrothermal Carbonized Nanoscale Cellulose Observed from Citric Acid Catalysis and Acetone Rinsing. *Nanomaterials*, **2020**, 10,	5.4	8
110	Sudanese Agro-residue as a Novel Furnish for Pulp and Paper Manufacturing. *BioResources*, **2017**, 12,	1.3	8
109	Secondary pyrolysis pathway of monomeric aromatics resulting from oxidized β-O-4 lignin dimeric model compounds. *Fuel Processing Technology*, **2017**, 168, 11-19	7.2	8
108	The Structure of Lignin of Corn Stover and its Changes Induced by Mild Sodium Hydroxide Treatment. *BioResources*, **2014**, 9,	1.3	8
107	New Insights into Lignin Modification During Chlorine Dioxide Bleaching Sequences (II): Modifications in Extraction (E) and Chlorine Dioxide Bleaching (D1). *Journal of Wood Chemistry and Technology*, **2005**, 24, 221-237	2	8

106	Ultra-efficient photo-triggerable healing and shape-memory nanocomposite materials doped with copper sulfide nanoparticles. *Composites Science and Technology*, **2020**, 199, 108371	8.6	8
105	Near-critical water hydrothermal transformation of industrial lignins to high value phenolics. *Journal of Analytical and Applied Pyrolysis*, **2016**, 120, 297-303	6	8
104	Synthesis of Cationic Xylan Derivatives and Application as Strengthening Agents in Papermaking. *BioResources*, **2018**, 13,	1.3	8
103	One-Pot Solvothermal Synthesis of Graphene Nanocomposites for Catalytic Conversion of Cellulose to Ethylene Glycol. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 11110-11117	8.3	7
102	A semi-interpenetrating network polyampholyte hydrogel simultaneously demonstrating remarkable toughness and antibacterial properties. *New Journal of Chemistry*, **2016**, 40, 10520-10525	3.6	7
101	New Insights into Lignin Modification during Chlorine Dioxide Bleaching Sequences (IV): The Impact of Modifications in the (EP) and (EOP) Stages on the D1 Stage. *Journal of Wood Chemistry and Technology*, **2005**, 25, 149-170	2	7
100	Use of TOF-SIMS for the analysis of surface metals in H2O2-bleached lignocellulosic fibers. *Pure and Applied Chemistry*, **2001**, 73, 2047-2058	2.1	7
99	A new protocol for efficient and high yield preparation of cellulose nanofibrils. *Cellulose*, **2019**, 26, 877-887	5.5	7
98	The Impact of Xylanase and Hot Acid Pretreatment on HexAs in Eucalyptus Kraft Pulp Bleaching. *Journal of Wood Chemistry and Technology*, **2015**, 35, 239-250	2	6
97	Ionic Liquid-Based Molecular Oxygen Oxidation of Eucalyptus Kraft Lignin to Obtain a Suite of Monomeric Aromatic By-Products. *Journal of Wood Chemistry and Technology*, **2015**, 35, 280-290	2	6
96	3D Photoinduced Spatiotemporal Resolution of Cellulose-Based Hydrogels for Fabrication of Biomedical Devices.. *ACS Applied Bio Materials*, **2020**, 3, 5007-5019	4.1	6
95	Evaluation of Sudanese Sorghum and Bagasse as a Pulp and Paper Feedstock. *BioResources*, **2017**, 12,	1.3	6
94	The role of absorbed hemicelluloses on final paper properties and printability. *Fibers and Polymers*, **2016**, 17, 389-395	2	6
93	Relationship between the Kraft Green Liquor Sulfide Chemical Form and the Physical and Chemical Behavior of Softwood Chips during Pretreatment. *Industrial & Engineering Chemistry Research*, **2003**, 42, 3831-3837	3.9	6
92	PHOTOYELLOWING OF UNTREATED AND ACETYLATED ASPEN CHEMITHERMOMECHANICAL PULP UNDER ARGON, AMBIENT, AND OXYGEN ATMOSPHERES. *Journal of Wood Chemistry and Technology*, **2001**, 21, 343-360	2	6
91	Lignocellulosic Fibers from Renewable Resources Using Green Chemistry for a Circular Economy. *Global Challenges*, **2021**, 5, 2000065	4.3	6
90	Analytical Pyrolysis Characteristics of Enzymatic/Mild Acidolysis Lignin (EMAL). *BioResources*, **2018**, 13,	1.3	6
89	Hydrothermal and mechanically generated hemp hurd nanofibers for sustainable barrier coatings/films. *Industrial Crops and Products*, **2021**, 168, 113582	5.9	6

88	Effect of side-chain structure on hydrothermolysis of lignin model compounds. *Fuel Processing Technology*, **2017**, 166, 124-130	7.2	5
87	Coacervated liposoluble fructan-based host–guest microspheres as unique drug delivery materials. *RSC Advances*, **2015**, 5, 67759-67766	3.7	5
86	Impact factors for flux decline in ultrafiltration of lignocellulosic hydrolysis liquor. *Separation and Purification Technology*, **2020**, 240, 116597	8.3	5
85	Molecular Changes in Corn Stover Lignin Resulting from Pretreatment Chemistry. *BioResources*, **2017**, 12,	1.3	5
84	Chitosan-Based Reagents Endow Recycled Paper Fibers with Remarkable Physical and Antimicrobial Properties. *Industrial & Engineering Chemistry Research*, **2016**, 55, 7282-7286	3.9	5
83	Chemical Elucidation of Structurally Diverse Willow Lignins. *BioResources*, **2015**, 11,	1.3	5
82	Atom efficient thermal and photocuring combined treatments for the synthesis of novel eco-friendly grid-like zein nanofibres. *RSC Advances*, **2014**, 4, 61573-61579	3.7	5
81	Application of Photo-oxidative Processes for the Remediation of Bleached Kraft Pulp Effluent. *Industrial & Engineering Chemistry Research*, **2010**, 49, 11214-11220	3.9	5
80	Cellulosic Aerogels **2012**, 51-103		5
79	Chemical response of hardwood oligosaccharides as a statistical function of isolation protocol. *Journal of Agricultural and Food Chemistry*, **2008**, 56, 2953-9	5.7	5
78	Kinetic Profiling of Green Liquor-Modified Kraft Pulping. *Industrial & Engineering Chemistry Research*, **2005**, 44, 2948-2954	3.9	5
77	TMAH-pyrolysis ? gas chromatography ? mass spectrometry analysis of residual lignin changes in softwood kraft pulp during oxygen delignification. *Canadian Journal of Chemistry*, **2004**, 82, 1197-1202	0.9	5
76	Chemical Basis for a Selectivity Threshold to the Oxygen Delignification of Kraft Softwood Fiber As Supported by the Use of Chemical Selectivity Agents. *Industrial & Engineering Chemistry Research*, **2004**, 43, 2291-2295	3.9	5
75	Improved method for evaluation of cellulose degradation. *Journal of Wood Science*, **2003**, 49, 285-288	2.4	5
74	Kraft Green Liquor Pretreatment of Softwood Chips. 1. Chemical Sorption Profiles. *Industrial & Engineering Chemistry Research*, **2003**, 42, 646-652	3.9	5
73	Enhancement of delignification by ionic liquids pretreatment and modification of hardwood kraft pulp in preparation for bleaching. *BioResources*, **2020**, 15, 6299-6308	1.3	5
72	Underwater Superoleophobic Matrix-Formatted Liquid-Infused Porous Biomembranes for Extremely Efficient Deconstitution of Nanoemulsions. *ACS Applied Materials & Interfaces*, **2020**, 12, 50996-51006	9.5	5
71	Starch Derivatives that Contribute Significantly to the Bonding and Antibacterial Character of Recycled Fibers. *ACS Omega*, **2018**, 3, 5260-5265	3.9	5

70	Quantitative Study of the Interfacial Adsorption of Cellullase to Cellulose. *Journal of Physical Chemistry C*, **2015**, 150612090427003	3.8	4
69	Hydrothermal Carbonization of Nanofibrillated Cellulose: A Pioneering Model Study Demonstrating the Effect of Size on Final Material Qualities. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 1823-1830	8.3	4
68	Spectroscopic Interrogation of the Acetylation Selectivity of Hardwood Biopolymers. *Starch/Staerke*, **2019**, 71, 1900086	2.3	4
67	Soy flour detackification of stickies from paper recycling. *Nordic Pulp and Paper Research Journal*, **2015**, 30, 541-545	1.1	4
66	Nanocelluloses: Emerging Building Blocks for Renewable Materials **2012**, 105-125		4
65	Fundamental insights into the oxidation of lignocellulosics obtained from singlet oxygen photochemistry. *Journal of Photochemistry and Photobiology A: Chemistry*, **2004**, 168, 205-209	4.7	4
64	Investigation of the Chemistry of Oxygen Delignification of Low Kappa Softwood Kraft Pulp using an Organic/Inorganic Chemical Selectivity System. *Journal of Wood Chemistry and Technology*, **2005**, 25, 95-108	2	4
63	Analytical Pyrolysis Pathways of Guaiacyl Glycerol-β-guaiacyl Ether by Py-GC/MS. *BioResources*, **2016**, 11,	1.3	4
62	Ultrasound-assisted Xylanase Treatment of Chemi-Mechanical Poplar Pulp. *BioResources*, **2016**, 11,	1.3	4
61	Bacterial Superoleophobic Fibrous Matrices: A Naturally Occurring Liquid-Infused System for Oil-Water Separation. *Langmuir*, **2021**, 37, 2552-2562	4	4
60	A Novel Approach for Rapid Preparation of Monophasic Microemulsions That Facilitates Penetration of Woody Biomass. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 1665-1672	8.3	3
59	Kinetics of atom transfer radical polymerization of methyl methacrylate initiated by cellulose chloroacetate in BMIMCl. *Chemical Research in Chinese Universities*, **2013**, 29, 159-165	2.2	3
58	A preliminary assay of the potential of soy protein isolate and its hydrolysates to provide interfiber bonding enhancements in lignocellulosic furnishes. *Reactive and Functional Polymers*, **2014**, 85, 228-234	4.6	3
57	Modifying the Functionality of Starch Films with Natural Polymers. *ACS Symposium Series*, **2007**, 200-218	0.4	3
56	Chemical Study of the Variation in the Bleaching and Pulping Response of Predominantly Juvenile and Mature Northern Black Spruce Fractions. *Industrial & Engineering Chemistry Research*, **2005**, 44, 1652-1659	3.9	3
55	A quantitative comparison of the precipitation behavior of lignin from sweetgum and pine kraft black liquors. *BioResources*, **2020**, 15, 5464-5480	1.3	3
54	Fabrication of cross-linked starch-based nanofibrous mat with optimized diameter. *Tappi Journal*, **2019**, 18, 381-389	0.5	3
53	Facile Preparation and Characteristic Analysis of Sulfated Cellulose Nanofibril via the Pretreatment of Sulfamic Acid-Glycerol Based Deep Eutectic Solvents. *Nanomaterials*, **2021**, 11,	5.4	3

52	Efficient green approaches for the preparation of physically crosslinked chitin gel materials by freeze-induced self-assembly. *Journal of Molecular Liquids*, **2020**, 320, 114392	6	3
51	Simultaneously improved chitin gel formation and thermal stability promoted by TiO2. *Journal of Molecular Liquids*, **2021**, 328, 115332	6	3
50	Improved stress relaxation resistance of composites films by soy protein polymer. *Composites Communications*, **2021**, 24, 100644	6.7	3
49	Toward synergistic reinforced graphene nanoplatelets composite hydrogels with self-healing and multi-stimuli responses. *Polymer*, **2021**, 124228	3.9	3
48	Water Sorption and Barrier Properties of Cellulose Nanocomposites **2017**, 649-681		2
47	Catalytic Stepwise Pyrolysis of Technical Lignin. *BioResources*, **2017**, 12,	1.3	2
46	Synthesizing Magnetic Support for Laccase Immobilization for the Purification of Pre-hydrolysis Liquor. *BioResources*, **2017**, 13,	1.3	2
45	Unique alkyl ketene dimer Pickering-based dispersions: Preparation and application to paper sizing. *Journal of Applied Polymer Science*, **2018**, 135, 45730	2.9	2
44	Silver-doped carbon fibers at low loading capacity that display high antibacterial properties. *Journal of Chemical Technology and Biotechnology*, **2019**, 94, 1628-1637	3.5	2
43	Tuning Solute Partitioning Coefficients in a Biphasic Ionic Liquid/Water System to Facilitate Extraction of Lignin-Oxidized Aromatics. *BioResources*, **2015**, 10,	1.3	2
42	A novel and efficient approach for imparting magnetic susceptibility to lignocellulosic fibers. *Carbohydrate Polymers*, **2005**, 59, 517-520	10.3	2
41	Electron Transfer Photofragmentation Reactions in Monolayer Films at the Air/Water Interface. *Langmuir*, **1998**, 14, 3663-3672	4	2
40	Structural Analysis of Fast-Growing Aspen Alkaline Peroxide Mechanical Pulp Lignin: A Post-Enzymatic Treatment. *BioResources*, **2015**, 11,	1.3	2
39	Suitable approach using agricultural residues for pulp and paper manufacturing. *Nordic Pulp and Paper Research Journal*, **2017**, 32, 674-682	1.1	2
38	Structural elucidation of lignins from corncob acid hydrolysis residue by enzymatic mild acidolysis and deep eutectic solvent pretreatment. *BioResources*, **2020**, 15, 4362-4372	1.3	2
37	Esterified Polysaccharide Composites that Display Super Absorbency from Highly Favorable Hydrogen and Ionic Interactions. *Industrial & Engineering Chemistry Research*, **2020**, 59, 14234-14241	3.9	2
36	Enhancement of Lignin Extraction of Poplar by Treatment of Deep Eutectic Solvent with Low Halogen Content. *Polymers*, **2020**, 12,	4.5	2
35	Probing the molecular weights of sweetgum and pine kraft lignin fractions. *Tappi Journal*, **2021**, 20, 381-391	3.9	2

34	A feasible approach efficiently redisperse dried cellulose nanofibrils in water: vacuum or freeze drying in the presence of sodium chloride. *Cellulose*, **2021**, 28, 829-842	5.5	2
33	Sudanese Dicots as Alternative Fiber Sources for Pulp and Papermaking. *Drvna Industrija*, **2018**, 69, 175-188	0.8	2
32	Organic Solvent Isolation and Structural Characterization of Willow Lignin. *BioResources*, **2018**, 13,	1.3	2
31	Hydrothermal carbonization of soybean hulls for the generation of hydrochar: A promising valorization pathway for low value biomass. *Environmental Nanotechnology, Monitoring and Management*, **2021**, 16, 100571	3.3	2
30	Effect of different headspace concentrations of bornyl acetate on fecundity of green peach aphid and balsam woolly adelgid. *Scandinavian Journal of Forest Research*, **2017**, 32, 397-405	1.7	1
29	Fractionation and Characterization of Three Main Components from Pennisetum sinese Roxb. (P. sinese) by Microwave-assisted H2O2-NaOH Extraction. *BioResources*, **2017**, 12,	1.3	1
28	Biomechanical Pulping of Poplar with Crude Enzyme Secreted from Trametes sp. lg-9. *BioResources*, **2018**, 13,	1.3	1
27	Characterization Methods and Techniques **2017**, 107-140		1
26	High-Bulk Water Dispersible Paper-Based Composites. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 11334-11338	8.3	1
25	Ionic Liquid-Mediated Homogeneous Esterification of Cinnamic Anhydride to Xylans. *International Journal of Molecular Sciences*, **2017**, 18,	6.3	1
24	Potential contribution of anion exclusion to hydroxide penetration in green liquor-modified kraft pulping. *Holzforschung*, **2014**, 68, 617-621	2	1
23	Polysulfide Distribution During Kraft Pulping. *Industrial & Engineering Chemistry Research*, **2010** , 49, 3983-3985	3.9	1
22	Development and Application of Naturally Renewable Scaffold Materials for Bone Tissue Engineering **2009**, 293-314		1
21	Oxidative Chemistry of Lignin in Supercritical Carbon Dioxide and Expanded Liquids. *ACS Symposium Series*, **2007**, 311-331	0.4	1
20	The effects of lignocellulosic fiber surface area on the dynamics of lignin oxidation and diffusion. *Journal of Applied Polymer Science*, **2004**, 94, 177-181	2.9	1
19	Effect of lignin content and magnesium-to-manganese ratio on the selectivity of oxygen delignification in softwood kraft pulp. *Pure and Applied Chemistry*, **2001**, 73, 2059-2065	2.1	1
18	Breaking the Oxygen Delignification Barrier: Lignin Reactivity and Inactivity. *ACS Symposium Series*, **2001**, 92-107	0.4	1
17	The Effect of the Kraft Pulping Process, Wood Species, and pH on Lignin Recovery from Black Liquor. *Fibers*, **2022**, 10, 16	3.7	1

16	Facile synthesis of lignosulfonate-graphene porous hydrogel for effective removal of Cr(VI) from aqueous solution. *BioResources*, **2019**, 14, 7001-7014	1.3	1
15	Understanding the effect of severity factor of prehydrolysis on dissolving pulp production using prehydrolysis kraft pulping and elemental chlorine-free bleaching sequence. *BioResources*, **2020**, 15, 4323-4336	1.3	1
14	Preparation of an amphoteric lignin copolymer and its value in the papermaking industry. *BioResources*, **2020**, 15, 9625-9641	1.3	1
13	Soy flour and soy lecithin improve paper strength and formation. *Nordic Pulp and Paper Research Journal*, **2016**, 31, 407-410	1.1	1
12	Fundamental molecular characterization and comparison of the O, D0, and E stage effluents from hardwood pulp bleaching. *Tappi Journal*, **2019**, 18, 341-351	0.5	1
11	Controlling porosity and density of nanocellulose aerogels for superhydrophobic light materials. *Tappi Journal*, **2018**, 17, 145-153	0.5	1
10	Staged alkali and hydrogen peroxide treatment of poplar chemi-mechanical pulp. *BioResources*, **2020**, 15, 1062-1073	1.3	1
9	Improved reswelling behaviors and thermal stability of polyvinyl alcohol composite gels assisted by salt. *Materials Letters*, **2020**, 281, 128743	3.3	1
8	Fabrication of magnetic lignin-based adsorbent for removal of methyl orange dye from aqueous solution. *BioResources*, **2021**, 16, 5436-5449	1.3	1
7	Chitin□lay composite gels with enhanced thermal stability prepared in a green and facile approach. *Journal of Materials Science*, **2021**, 56, 3600-3611	4.3	1
6	Pulp properties and spent pretreatment solution resulting from reed pulping with a low alkali loading. *BioResources*, **2021**, 16, 2303-2313	1.3	1
5	Using multistage models to evaluate how pulp washing after the first extraction stage impacts elemental chlorine-free bleach demand. *Tappi Journal*, **2018**, 17, 621-630	0.5	0
4	The Attraction of Magnetically Susceptible Paper **2006**, 209-214		
3	Soybean peroxidase treatment of ultra-high kappa softwood pulp to enhance yield and physical properties. *Tappi Journal*, **2020**, 19, 437-443	0.5	
2	Bioactive and Compatible Polysaccharides Hydrogels Structure and Properties for Pharmaceutical Applications163-177		
1	Hemp Is the 21st Century Tobacco. *ACS Agricultural Science and Technology*, **2021**, 1, 283-284		