

Lei Dai

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6707593/publications.pdf>

Version: 2024-02-01

66
papers

3,026
citations

147801

31
h-index

161849

54
g-index

67
all docs

67
docs citations

67
times ranked

3395
citing authors

#	ARTICLE	IF	CITATIONS
1	3D printing using plant-derived cellulose and its derivatives: A review. <i>Carbohydrate Polymers</i> , 2019, 203, 71-86.	10.2	232
2	Chitosan as A Preservative for Fruits and Vegetables: A Review on Chemistry and Antimicrobial Properties. <i>Journal of Bioresources and Bioproducts</i> , 2019, 4, 11-21.	20.5	193
3	Ultraflexible Self-Healing Guar Gum-Glycerol Hydrogel with Injectable, Antifreeze, and Strain-Sensitive Properties. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 3397-3404.	5.2	163
4	Robust Guar Gum/Cellulose Nanofibrils Multilayer Films with Good Barrier Properties. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 5477-5485.	8.0	122
5	Ultrasensitive Physical, Bio, and Chemical Sensors Derived from 1 st , 2 nd , and 3 rd Nanocellulosic Materials. <i>Small</i> , 2020, 16, e1906567.	10.0	122
6	Non-carbonized porous lignin-free wood as an effective scaffold to fabricate lignin-free Wood@Polyaniline supercapacitor material for renewable energy storage application. <i>Journal of Power Sources</i> , 2020, 471, 228448.	7.8	97
7	A smart paper@polyaniline nanofibers incorporated vitrimer bifunctional device with reshaping, shape-memory and self-healing properties applied in high-performance supercapacitors and sensors. <i>Chemical Engineering Journal</i> , 2020, 396, 125318.	12.7	93
8	Carbohydrates-rich corncobs supported metal-organic frameworks as versatile biosorbents for dye removal and microbial inactivation. <i>Carbohydrate Polymers</i> , 2019, 222, 115042.	10.2	86
9	Fabrication of eco-friendly carbon microtubes @ nitrogen-doped reduced graphene oxide hybrid as an excellent carbonaceous scaffold to load MnO ₂ nanowall (PANI nanorod) as bifunctional material for high-performance supercapacitor and oxygen reduction reaction catalyst. <i>Journal of Power Sources</i> , 2020, 447, 227387.	7.8	86
10	A self-cleaning and photocatalytic cellulose-fiber- supported Ag@AgCl@MOF- cloth™™ membrane for complex wastewater remediation. <i>Carbohydrate Polymers</i> , 2020, 247, 116691.	10.2	83
11	Facile synthesis of Ag NPs@ MIL-100(Fe)/ guar gum hybrid hydrogel as a versatile photocatalyst for wastewater remediation: Photocatalytic degradation, water/oil separation and bacterial inactivation. <i>Carbohydrate Polymers</i> , 2020, 230, 115642.	10.2	82
12	A novel and green cellulose-based Schiff base-Cu (II) complex and its excellent antibacterial activity. <i>Carbohydrate Polymers</i> , 2020, 230, 115671.	10.2	76
13	Synthesis of nano-fibrillated cellulose/magnetite/titanium dioxide (NFC@Fe ₃ O ₄ @TNP) nanocomposites and their application in the photocatalytic hydrogen generation. <i>Applied Catalysis B: Environmental</i> , 2017, 206, 53-64.	20.2	72
14	Carbonized wood cell chamber-reduced graphene oxide@PVA flexible conductive material for supercapacitor, strain sensing and moisture-electric generation applications. <i>Chemical Engineering Journal</i> , 2021, 418, 129518.	12.7	72
15	Screen printing fabricating patterned and customized full paper-based energy storage devices with excellent photothermal, self-healing, high energy density and good electromagnetic shielding performances. <i>Journal of Materials Science and Technology</i> , 2022, 97, 190-200.	10.7	71
16	Cellulose-based electrospun nanofiber membrane with core-sheath structure and robust photocatalytic activity for simultaneous and efficient oil emulsions separation, dye degradation and Cr(VI) reduction. <i>Carbohydrate Polymers</i> , 2021, 258, 117676.	10.2	69
17	Multifunctional self-assembling hydrogel from guar gum. <i>Chemical Engineering Journal</i> , 2017, 330, 1044-1051.	12.7	68
18	Vitrimer-Cellulose Paper Composites: A New Class of Strong, Smart, Green, and Sustainable Materials. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 36090-36099.	8.0	67

#	ARTICLE	IF	CITATIONS
19	Green and sustainable cellulose-derived humidity sensors: A review. <i>Carbohydrate Polymers</i> , 2021, 270, 118385.	10.2	66
20	Oil/water interfaces of guar gum-based biopolymer hydrogels and application to their separation. <i>Carbohydrate Polymers</i> , 2017, 169, 9-15.	10.2	63
21	Fabrication of 3D Expanded Graphite-Based (MnO ₂ Nanowalls and PANI Nanofibers) Hybrid as Bifunctional Material for High-Performance Supercapacitor and Sensor. <i>Journal of the Electrochemical Society</i> , 2019, 166, A3965-A3971.	2.9	62
22	Chitosan oligosaccharide-based dual pH responsive nano-micelles for targeted delivery of hydrophobic drugs. <i>Carbohydrate Polymers</i> , 2019, 223, 115061.	10.2	58
23	A multifunctional self-crosslinked chitosan/cationic guar gum composite hydrogel and its versatile uses in phosphate-containing water treatment and energy storage. <i>Carbohydrate Polymers</i> , 2020, 244, 116472.	10.2	58
24	Asymmetrically Patterned Cellulose Nanofibers/Graphene Oxide Composite Film for Humidity Sensing and Moist-Induced Electricity Generation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 55205-55214.	8.0	56
25	Self-assembled all-polysaccharide hydrogel film for versatile paper-based food packaging. <i>Carbohydrate Polymers</i> , 2021, 271, 118425.	10.2	47
26	Fabrication of reduced graphene oxide-cellulose nanofibers based hybrid film with good hydrophilicity and conductivity as electrodes of supercapacitor. <i>Cellulose</i> , 2021, 28, 3733-3743.	4.9	44
27	Hydrogel as a Superwetting Surface Design Material for Oil/Water Separation: A Review. <i>Advanced Materials Interfaces</i> , 2021, 8, 2002030.	3.7	43
28	A versatile TOCN/CGG self-assembling hydrogel for integrated wastewater treatment. <i>Cellulose</i> , 2020, 27, 915-925.	4.9	41
29	Silver nanoparticles-containing dual-function hydrogels based on a guar gum-sodium borohydride system. <i>Scientific Reports</i> , 2016, 6, 36497.	3.3	40
30	A New Kind of Nonconventional Luminogen Based on Aliphatic Polyhydroxyurethane and Its Potential Application in Ink-Free Anticounterfeiting Printing. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 11005-11015.	8.0	38
31	Properties of hydroxypropyl guar/TEMPO-oxidized cellulose nanofibrils composite films. <i>Cellulose</i> , 2015, 22, 3117-3126.	4.9	34
32	A self-assembling guar gum hydrogel for efficient oil/water separation in harsh environments. <i>Separation and Purification Technology</i> , 2019, 225, 129-135.	7.9	32
33	Chitosan-based Polymer Matrix for Pharmaceutical Excipients and Drug Delivery. <i>Current Medicinal Chemistry</i> , 2019, 26, 2502-2513.	2.4	32
34	An Ultrastrong and Antibacterial Silver Nanowire/Aligned Cellulose Scaffold Composite Film for Electromagnetic Interference Shielding. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 14520-14531.	8.0	30
35	Integrating phosphotungstic acid-assisted prerefining with cellulase treatment for enhancing the reactivity of kraft-based dissolving pulp. <i>Bioresource Technology</i> , 2021, 320, 124283.	9.6	29
36	Fabrication of high value cellulose nanofibers@Ni foam by non carbonization: various application developed during the preparation. <i>Cellulose</i> , 2021, 28, 1455-1468.	4.9	29

#	ARTICLE	IF	CITATIONS
37	Injectable all-polysaccharide self-assembling hydrogel: a promising scaffold for localized therapeutic proteins. <i>Cellulose</i> , 2019, 26, 6891-6901.	4.9	25
38	Co-N-Doped Directional Multichannel PAN/CA-Based Electrospun Carbon Nanofibers as High-Efficiency Bifunctional Oxygen Electrocatalysts for Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 17068-17077.	6.7	25
39	Co/CoS nanofibers with flower-like structure immobilized in carbonated porous wood as bifunctional material for high-performance supercapacitors and catalysts. <i>Materials and Design</i> , 2020, 195, 108942.	7.0	24
40	Porous hybrid scaffold strategy for the realization of lightweight, highly efficient microwave absorbing materials. <i>Journal of Materials Science and Technology</i> , 2022, 129, 215-222.	10.7	24
41	Comparison of hydroxypropyl and carboxymethyl guar for the preparation of nanocellulose composite films. <i>Cellulose</i> , 2016, 23, 2989-2999.	4.9	22
42	A highly efficient thermo responsive palladium nanoparticles incorporated guar gum hydrogel for effective catalytic reactions. <i>Carbohydrate Polymers</i> , 2019, 226, 115289.	10.2	22
43	Robust and adhesive lignin hybrid hydrogel as an ultrasensitive sensor. <i>International Journal of Biological Macromolecules</i> , 2022, 213, 226-233.	7.5	22
44	Construction of flexible cellulose nanofiber fiber@graphene quantum dots hybrid film applied in supercapacitor and sensor. <i>Cellulose</i> , 2021, 28, 10359-10372.	4.9	21
45	Carbonized porous wood as an effective scaffold for loading flower-like CoS, NiS nanofibers with Co, Ni nanoparticles served as electrode material for high-performance supercapacitors. <i>Industrial Crops and Products</i> , 2021, 167, 113545.	5.2	21
46	A green all-polysaccharide hydrogel platform for sensing and electricity harvesting/storage. <i>Journal of Power Sources</i> , 2021, 493, 229711.	7.8	18
47	Electrospun polyvinyl alcohol/waterborne polyurethane composite nanofibers involving cellulose nanofibers. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	2.6	15
48	Organic modification of bentonite and its effect on rheological properties of paper coating. <i>Applied Clay Science</i> , 2015, 104, 106-109.	5.2	15
49	Isolation and Characterization of Microcrystalline Cellulose from Bamboo Pulp Through Extremely Low Acid Hydrolysis. <i>Journal of Wood Chemistry and Technology</i> , 2019, 39, 242-254.	1.7	15
50	Preparation of Dialdehyde Chitosan and its Application in Green Synthesis of Silver Nanoparticles. <i>BioResources</i> , 2013, 8, .	1.0	14
51	Simultaneous mechanical refining and phosphotungstic acid catalysis for improving the reactivity of kraft-based dissolving pulp. <i>Cellulose</i> , 2019, 26, 5685-5694.	4.9	14
52	Mixed-Acid-Assisted Hydrothermal Process for Simultaneous Preparation and Carboxylation of Needle-Shaped Cellulose Nanocrystals. <i>ACS Applied Polymer Materials</i> , 2020, 2, 548-562.	4.4	14
53	TEMPO-mediated oxidation of cellulose in carbonate buffer solution. <i>Fibers and Polymers</i> , 2015, 16, 319-325.	2.1	9
54	TEMPO-Oxidized Waste Cellulose as Reinforcement for Recycled Fiber Networks. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 15065-15071.	3.7	9

#	ARTICLE	IF	CITATIONS
55	Microwave-assisted solvothermal in-situ synthesis of CdS nanoparticles on bacterial cellulose matrix for photocatalytic application. <i>Cellulose</i> , 2020, 27, 5939-5954.	4.9	8
56	Hydroxypropyl starch-based films reinforced by incorporation of alkalized microcrystalline cellulose. <i>Polymer Composites</i> , 2019, 40, E856.	4.6	5
57	A sustainable filtering material for efficient removal of volatile organic compounds from their aqueous mixtures. <i>Cellulose</i> , 2021, 28, 6353.	4.9	5
58	Highly ordered asymmetric cellulose-based honeycomb membrane for moisture-electricity generation and humidity sensing. <i>Carbohydrate Polymers</i> , 2022, 294, 119809.	10.2	5
59	Kinetics of the Curing Reaction of a Diglycidyl Ether of Bisphenol with a Methanol Etherified Amino Resin. <i>Advanced Materials Research</i> , 0, 380, 60-63.	0.3	4
60	Preparation of Cationic Chitosan-g-Polyacrylamide and its Performance on Strengthening Paper and Antibacterial Activities. <i>Asian Journal of Chemistry</i> , 2014, 26, 4235-4242.	0.3	3
61	Water-redispersible cellulose nanocrystals adsorption of glucose via alcohol precipitation. <i>Journal of Wood Chemistry and Technology</i> , 2021, 41, 169-176.	1.7	3
62	Role of nanocellulose in colored paper preparation. <i>International Journal of Biological Macromolecules</i> , 2022, 206, 355-362.	7.5	3
63	A Novel Ternary Composite of Polyurethane/Polyaniline/Nanosilica with Antistatic Property and Excellent Mechanical Strength: Preparation and Mechanism. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2022, 40, 789-798.	3.8	3
64	A new approach for the preparation of cellulose nanocrystals from bamboo pulp through extremely low acid hydrolysis. <i>Tappi Journal</i> , 2020, 19, 21-27.	0.5	2
65	Study on Structure and Properties of Degradable Polymer/Modified Nano-SiO ₂ Composites. <i>Advanced Materials Research</i> , 0, 773, 514-519.	0.3	0
66	UPLC Coupled with a Post-column Derivatization Approach for Identification of Bioactive Compounds in Huanglian Jiedu Decoction. <i>Chromatographia</i> , 2021, 84, 1025.	1.3	0