Wadood Y Hamad

List of Publications by Year
in descending order

120 papers	9,739 citations	34105 52 h-index	38395 95 g-index
141 all docs	141 docs citations	141 times ranked	7512 citing authors

#	Article	IF	Citations
1	Free-standing mesoporous silica films with tunable chiral nematic structures. Nature, 2010, 468, 422-425.	27.8	837
2	Current characterization methods for cellulose nanomaterials. Chemical Society Reviews, 2018, 47, 2609-2679.	38.1	690
3	Cellulose reinforced polymer composites and nanocomposites: a critical review. Cellulose, 2013, 20, 2221-2262.	4.9	510
4	Responsive Photonic Hydrogels Based on Nanocrystalline Cellulose. Angewandte Chemie - International Edition, 2013, 52, 8912-8916.	13.8	325
5	Rheology of Nanocrystalline Cellulose Aqueous Suspensions. Langmuir, 2012, 28, 17124-17133.	3.5	287
6	The Development of Chiral Nematic Mesoporous Materials. Accounts of Chemical Research, 2014, 47, 1088-1096.	15.6	256
7	The use of nanocrystalline cellulose for the binding and controlled release of drugs. International Journal of Nanomedicine, 2011, 6, 321.	6.7	227
8	Parameters Affecting the Chiral Nematic Phase of Nanocrystalline Cellulose Films. Macromolecules, 2010, 43, 3851-3858.	4.8	214
9	Chiral Nematic Mesoporous Carbon Derived From Nanocrystalline Cellulose. Angewandte Chemie - International Edition, 2011, 50, 10991-10995.	13.8	209
10	Flexible Photonic Cellulose Nanocrystal Films. Advanced Materials, 2016, 28, 10042-10047.	21.0	202
11	Structure and transformation of tactoids in cellulose nanocrystal suspensions. Nature Communications, 2016, 7, 11515.	12.8	199
12	Unwinding a spiral of cellulose nanocrystals for stimuli-responsive stretchable optics. Nature Communications, 2019, 10, 510.	12.8	199
13	Flexible and Iridescent Chiral Nematic Mesoporous Organosilica Films. Journal of the American Chemical Society, 2012, 134, 867-870.	13.7	194
14	Ionic strength effects on the microstructure and shear rheology of cellulose nanocrystal suspensions. Cellulose, 2014, 21, 3347-3359.	4.9	182
15	Structureâ€"processâ€"yield interrelations in nanocrystalline cellulose extraction. Canadian Journal of Chemical Engineering, 2010, 88, 392-402.	1.7	178
16	Chiral Nematic Assemblies of Silver Nanoparticles in Mesoporous Silica Thin Films. Journal of the American Chemical Society, 2011, 133, 3728-3731.	13.7	158
17	Flexible Mesoporous Photonic Resins with Tunable Chiral Nematic Structures. Angewandte Chemie - International Edition, 2013, 52, 8921-8924.	13.8	154
18	Hard Templating of Nanocrystalline Titanium Dioxide with Chiral Nematic Ordering. Angewandte Chemie - International Edition, 2012, 51, 6886-6890.	13.8	149

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19	Responsive Mesoporous Photonic Cellulose Films by Supramolecular Cotemplating. Angewandte Chemie - International Edition, 2014, 53, 8880-8884.	13.8	147
20	Influence of degree of sulfation on the rheology of cellulose nanocrystal suspensions. Rheologica Acta, 2013, 52, 741-751.	2.4	136
21	Antimicrobial nanocomposite films made of poly(lactic acid)â€“cellulose nanocrystals (PLAâ€“CNC) in food applicationsâ€"part B: effect of oregano essential oil release on the inactivation of Listeria monocytogenes in mixed vegetables. Cellulose, 2014, 21, 4271-4285.	4.9	132
22	On the Development and Applications of Cellulosic Nanofibrillar and Nanocrystalline Materials. Canadian Journal of Chemical Engineering, 2006, 84, 513-519.	1.7	127
23	Biopolymer Templated Glass with a Twist: Controlling the Chirality, Porosity, and Photonic Properties of Silica with Cellulose Nanocrystals. Advanced Functional Materials, 2014, 24, 327-338.	14.9	119
24	Iridescent Chiral Nematic Cellulose Nanocrystal/Polymer Composites Assembled in Organic Solvents. ACS Macro Letters, 2013, 2, 1016-1020.	4.8	118
25	CdS Quantum Dots Encapsulated in Chiral Nematic Mesoporous Silica: New Iridescent and Luminescent Materials. Advanced Functional Materials, 2014, 24, 777-783.	14.9	110
26	Shear rheology of polylactide (PLA)â€“cellulose nanocrystal (CNC) nanocomposites. Cellulose, 2016, 23, 1885-1897.	4.9	109
27	Antimicrobial nanocomposite films made of poly(lactic acid)-cellulose nanocrystals (PLA-CNC) in food applications: part Aâ€"effect of nisin release on the inactivation of Listeria monocytogenes in ham. Cellulose, 2014, 21, 1837-1850.	4.9	105
28	Hydrothermal Gelation of Aqueous Cellulose Nanocrystal Suspensions. Biomacromolecules, 2016, 17, 2747-2754.	5.4	104
29	Tunable Mesoporous Bilayer Photonic Resins with Chiral Nematic Structures and Actuator Properties. Advanced Materials, 2014, 26, 2323-2328.	21.0	97
30	Chiral nematic celluloseâ€“gold nanoparticle composites from mesoporous photonic cellulose. Chemical Communications, 2015, 51, 530-533.	4.1	97
31	Cellulose Nanocrystal Elastomers with Reversible Visible Color. Angewandte Chemie - International Edition, 2020, 59, 226-231.	13.8	96
32	In-situ polymerized cellulose nanocrystals (CNC)â€"poly(l -lactide) (PLLA) nanomaterials and applications in nanocomposite processing. Carbohydrate Polymers, 2016, 153, 549-558.	10.2	90
33	Tactoid Annealing Improves Order in Self-Assembled Cellulose Nanocrystal Films with Chiral Nematic Structures. Langmuir, 2018, 34, 646-652.	3.5	89
34	Imprinting of Photonic Patterns with Thermosetting Amino-Formaldehyde-Cellulose Composites. ACS Macro Letters, 2013, 2, 818-821.	4.8	88
35	Stable and sensitive stimuli-responsive anisotropic hydrogels for sensing ionic strength and pressure. Materials Horizons, 2018, 5, 1076-1081.	12.2	85
36	Tuning the iridescence of chiral nematic cellulose nanocrystals and mesoporous silica films by substrate variation. Chemical Communications, 2013, 49, 11296.	4.1	81

#	ARTICLE	IF	CITATIONS
37	Chiral Nematic Stained Glass: Controlling the Optical Properties of Nanocrystalline Cellulose-Templated Materials. Langmuir, 2012, 28, 17256-17262.	3.5	76
38	Photonic Patterns Printed in Chiral Nematic Mesoporous Resins. Angewandte Chemie - International Edition, 2015, 54, 4304-4308.	13.8	73
39	Chiroptical, morphological and conducting properties of chiral nematic mesoporous cellulose/polypyrrole composite films. Journal of Materials Chemistry A, 2017, 5, 19184-19194.	10.3	72
40	Critical insights into the reinforcement potential of cellulose nanocrystals in polymer nanocomposites. Current Opinion in Solid State and Materials Science, 2019, 23, 100761.	11.5	71
41	Large, Crackâ€Free Freestanding Films with Chiral Nematic Structures. Advanced Optical Materials, 2013, 1, 295-299.	7.3	69
42	Shape Memory Cellulose-Based Photonic Reflectors. ACS Applied Materials & Interfaces, 2016, 8, 31935-31940.	8.0	68
43	Transparent Depolarizing Organic and Inorganic Films for Optics and Sensors. Advanced Materials, 2017, 29, 1606083.	21.0	65
44	Aerogel materials with periodic structures imprinted with cellulose nanocrystals. Nanoscale, 2018, 10, 3805-3812.	5.6	65
45	Thermal Switching of the Reflection in Chiral Nematic Mesoporous Organosilica Films Infiltrated with Liquid Crystals. ACS Applied Materials & Interfaces, 2013, 5, 6854-6859.	8.0	63
46	Thermal Degradation of Cellulose Filaments and Nanocrystals. Biomacromolecules, 2020, 21, 3374-3386.	5.4	62
47	Stimuli-Responsive Anisotropic Materials Based on Unidirectional Organization of Cellulose Nanocrystals in an Elastomer. Macromolecules, 2019, 52, 5317-5324.	4.8	60
48	Optically tunable chiral nematic mesoporous cellulose films. Soft Matter, 2015, 11, 4686-4694.	2.7	58
49	Polymer and Mesoporous Silica Microspheres with Chiral Nematic Order from Cellulose Nanocrystals. Angewandte Chemie - International Edition, 2016, 55, 12460-12464.	13.8	58
50	Pressureâ€Responsive Hierarchical Chiral Photonic Aerogels. Advanced Materials, 2019, 31, e1808186.	21.0	58
51	Freezeâ€“Thaw Gelation of Cellulose Nanocrystals. ACS Macro Letters, 2019, 8, 486-491.	4.8	57
52	CO₂-Switchable Cellulose Nanocrystal Hydrogels. Chemistry of Materials, 2018, 30, 376-385.	6.7	56
53	New insights into nano-crystalline cellulose structure and morphology based on solid-state NMR. Cellulose, 2012, 19, 1619-1629.	4.9	54
54	Iridescent Cellulose Nanocrystal Films Modified with Hydroxypropyl Cellulose. Biomacromolecules, 2020, 21, 1295-1302.	5.4	53

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55	Chiroptical luminescent nanostructured cellulose films. Materials Chemistry Frontiers, 2017, 1, 979-987.	5.9	51
56	Effects of Emulsion Droplet Size on the Structure of Electrospun Ultrafine Biocomposite Fibers with Cellulose Nanocrystals. Biomacromolecules, 2013, 14, 3801-3807.	5.4	46
57	Black Titania with Nanoscale Helicity. Advanced Functional Materials, 2019, 29, 1904639.	14.9	45
58	Tunable Diffraction Gratings from Biosourced Lyotropic Liquid Crystals. Advanced Materials, 2020, 32, e1907376.	21.0	45
59	Fabrication of Cellulose Nanocrystal Films through Differential Evaporation for Patterned Coatings. ACS Applied Nano Materials, 2018, 1, 3098-3104.	5.0	43
60	Retrieving the Coassembly Pathway of Composite Cellulose Nanocrystal Photonic Films from their Angular Optical Response. Advanced Materials, 2020, 32, e1906889.	21.0	40
61	Nearâ€ŀRâ€Sensitive Upconverting Nanostructured Photonic Cellulose Films. Advanced Optical Materials, 2017, 5, 1600514.	7.3	36
62	Broadband Circular Polarizing Film Based on Chiral Nematic Liquid Crystals. Advanced Optical Materials, 2018, 6, 1800412.	7.3	36
63	Alkenylation of cellulose nanocrystals (CNC) and their applications. Polymer, 2016, 101, 338-346.	3.8	32
64	Surface modification of lignin for applications in polypropylene blends. Journal of Applied Polymer Science, 2017, 134, 45103.	2.6	32
65	Tuning the photonic properties of chiral nematic mesoporous organosilica with hydrogen-bonded liquid-crystalline assemblies. Journal of Materials Chemistry C, 2015, 3, 1537-1545.	5.5	31
66	Controlling lignin particle size for polymer blend applications. Journal of Applied Polymer Science, 2017, 134, .	2.6	31
67	Chiral Nematic Cellulose Nanocrystal/Germania and Carbon/Germania Composite Aerogels as Supercapacitor Materials. Chemistry of Materials, 2021, 33, 5197-5209.	6.7	31
68	Magnesiothermic Reduction of Thin Films: Towards Semiconducting Chiral Nematic Mesoporous Silicon Carbide and Silicon Structures. Advanced Functional Materials, 2015, 25, 2175-2181.	14.9	30
69	Shapeâ€Memory Photonic Thermoplastics from Cellulose Nanocrystals. Advanced Functional Materials, 2021, 31, 2103268.	14.9	30
70	Chiral nematic porous germania and germanium/carbon films. Nanoscale, 2015, 7, 13215-13223.	5.6	28
71	Investigation of the formation mechanisms in high internal phase Pickering emulsions stabilized by cellulose nanocrystals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170039.	3.4	28
72	Post-modification of Cellulose Nanocrystal Aerogels with Thiolâ€"Ene Click Chemistry. Biomacromolecules, 2019, 20, 2779-2785.	5.4	28

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73	Self-Assembly Route to TiO₂ and TiC with a Liquid Crystalline Order. Chemistry of Materials, 2019, 31, 2174-2181.	6.7	28
74	Cellulose Nanocrystal Elastomers with Reversible Visible Color. Angewandte Chemie, 2020, 132, 232-237.	2.0	25
75	Novel PPV/Mesoporous Organosilica Composites: Influence of the Host Chirality on a Conjugated Polymer Guest. Langmuir, 2013, 29, 12579-12584.	3.5	24
76	A rheological investigation of oil-in-water Pickering emulsions stabilized by cellulose nanocrystals. Journal of Colloid and Interface Science, 2022, 608, 2820-2829.	9.4	24
77	Photopatterning Freestanding Chiral Nematic Mesoporous Organosilica Films. Advanced Functional Materials, 2017, 27, 1703346.	14.9	23
78	Hydrogenâ€Bonded Liquid Crystals in Confined Spacesâ€"Toward Photonic Hybrid Materials. Advanced Functional Materials, 2018, 28, 1800207.	14.9	23
79	Properties and stabilization mechanism of oil-in-water Pickering emulsions stabilized by cellulose filaments. Carbohydrate Polymers, 2020, 248, 116775.	10.2	22
80	Hard Photonic Glasses and Corundum Nanostructured Films from Aluminothermic Reduction of Helicoidal Mesoporous Silicas. Chemistry of Materials, 2016, 28, 2581-2588.	6.7	21
81	Microsuspension Polymerization of Styrene Using Cellulose Nanocrystals as Pickering Emulsifiers: On the Evolution of Latex Particles. Langmuir, 2020, 36, 796-809.	3.5	21
82	Some microrheological aspects of wood-pulp fibres subjected to fatigue loading. Cellulose, 1997, 4, 51-56.	4.9	19
83	Emulsion-polymerized flexible semi-conducting CNCsâ€“PANIâ€“DBSA nanocomposite films. RSC Advances, 2016, 6, 65494-65503.	3.6	19
84	Boundary Geometry Effects on the Coalescence of Liquid Crystalline Tactoids and Formation of Topological Defects. Journal of Physical Chemistry Letters, 2019, 10, 278-282.	4.6	19
85	Mechanically tunable nanocomposite hydrogels based on functionalized cellulose nanocrystals. Nordic Pulp and Paper Research Journal, 2014, 29, 95-104.	0.7	18
86	Sizeâ€Selective Exclusion Effects of Liquid Crystalline Tactoids on Nanoparticles: A Separation Method. Angewandte Chemie - International Edition, 2018, 57, 3360-3365.	13.8	18
87	Liquid Crystalline Tactoidal Microphases in Ferrofluids: Spatial Positioning and Orientation by Magnetic Field Gradients. CheM, 2019, 5, 681-692.	11.7	17
88	Fast Selfâ€Assembly of Scalable Photonic Cellulose Nanocrystals and Hybrid Films via Electrophoresis. Advanced Materials, 2022, 34, e2109170.	21.0	17
89	Synthesis of Chiral Nematic Mesoporous Metal and Metal Oxide Nanocomposites and their Use as Heterogeneous Catalysts. European Journal of Inorganic Chemistry, 2020, 2020, 3937-3943.	2.0	16
90	Moisture-tunable, ionic strength-controlled piezoelectric effect in cellulose nanocrystal films. Applied Materials Today, 2021, 24, 101082.	4.3	16

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91	Improving Thin-Film Properties of Poly(vinyl alcohol) by the Addition of Low-Weight Percentages of Cellulose Nanocrystals. Langmuir, 2020, 36, 3550-3557.	3.5	15
92	Magnetic Mesoporous Photonic Cellulose Films. Langmuir, 2016, 32, 9329-9334.	3.5	14
93	Iridescent Chiral Nematic Mesoporous Organosilicas with Alkylene Spacers. Advanced Optical Materials, 2018, 6, 1800163.	7.3	14
94	Growing the Bioeconomy: Advances in the Development of Applications for Cellulose Filaments and Nanocrystals. Industrial Biotechnology, 2019, 15, 133-137.	0.8	14
95	Microstructural cumulative material degradation and fatigue-failure micromechanisms in wood-pulp fibres. Cellulose, 1995, 2, 159-177.	4.9	13
96	Hard-templating of Prussian blue analogues in mesoporous silica and organosilica. Dalton Transactions, 2015, 44, 14724-14731.	3.3	13
97	Photonic and Semiconductor Materials Based on Cellulose Nanocrystals. Advances in Polymer Science, 2015, , 287-328.	0.8	13
98	Inâ€situ production of polyethylene/cellulose nanocrystal composites. Canadian Journal of Chemical Engineering, 2016, 94, 2107-2113.	1.7	13
99	Hostâ€"Guest Chemistry Within Cellulose Nanocrystal Gel Receptors. Angewandte Chemie - International Edition, 2020, 59, 4705-4710.	13.8	13
100	Photonic metalâ€"polymer resin nanocomposites with chiral nematic order. Chemical Communications, 2016, 52, 7810-7813.	4.1	11
101	Concentric chiral nematic polymeric fibers from cellulose nanocrystals. Nanoscale Advances, 2021, 3, 5111-5121.	4.6	11
102	Plant-Inspired Polyaleuritateâ€"Nanocellulose Composite Photonic Films. ACS Applied Polymer Materials, 2020, 2, 1528-1534.	4.4	10
103	Thermal annealing of iridescent cellulose nanocrystal films. Carbohydrate Polymers, 2021, 272, 118468.	10.2	10
104	Aerogel templating on functionalized fibers of nanocellulose networks. Materials Chemistry Frontiers, 2018, 2, 1655-1663.	5.9	9
105	Solid-state 23Na NMR spectroscopy studies of ordered and disordered cellulose nanocrystal films. Solid State Nuclear Magnetic Resonance, 2019, 97, 31-39.	2.3	9
106	Electro-osmotic Actuators from Cellulose Nanocrystals and Nanocomposite Hydrogels. ACS Applied Polymer Materials, 2022, 4, 598-606.	4.4	9
107	Tuning the Optical and Thermal Properties of Both Iridescent and Colorless Cellulose Nanocrystal Films. ACS Sustainable Chemistry and Engineering, 2022, 10, 8715-8724.	6.7	9
108	Analysis of fibre deformation processes in high-consistency refining based on Raman microscopy and X-ray diffraction. Holzforschung, 2012, 66, 711-716.	1.9	8

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109	Cellulose Nanocrystal Chiral Nematic Composites with Wet Mechanical Adaptability. Chemistry of Materials, 2022, 34, 4311-4319.	6.7	8
110	Chiral nematic mesoporous magnetic ferrites. Journal of Materials Chemistry C, 2016, 4, 11382-11386.	5.5	7
111	Polymer and Mesoporous Silica Microspheres with Chiral Nematic Order from Cellulose Nanocrystals. Angewandte Chemie, 2016, 128, 12648-12652.	2.0	7
112	Effect of thermal treatments on chiral nematic cellulose nanocrystal films. Carbohydrate Polymers, 2021, 272, 118404.	10.2	7
113	How hydrogen-bonding interactions and nanocrystal aspect ratios influence the morphology and mechanical performance of polymer nanocomposites reinforced with cellulose nanocrystals. Soft Matter, 2022, 18, 4572-4581.	2.7	5
114	Sustainable biochars from carbonization of cellulose filaments and nanocrystals. Bioresource Technology Reports, 2021, 16, 100838.	2.7	4
115	Using rotation to organize cellulose nanocrystals inside a fiber. Nanoscale, 2022, , .	5.6	4
116	Sizeâ€Selective Exclusion Effects of Liquid Crystalline Tactoids on Nanoparticles: A Separation Method. Angewandte Chemie, 2018, 130, 3418-3423.	2.0	2
117	Hostâ€"Guest Chemistry Within Cellulose Nanocrystal Gel Receptors. Angewandte Chemie, 2020, 132, 4735-4740.	2.0	2
118	Chiral Photonic Aerogels: Pressureâ€Responsive Hierarchical Chiral Photonic Aerogels (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	21.0	1
119	Guest-conditioned multicolor writing on cellulose nanocrystal canvases. Materials Advances, 2020, 1, 2536-2541.	5.4	1
120	Tuning the Properties of Chiral Nematic Mesoporous (Organo)silica Through Thiolâ€Ene Click Chemistry. European Journal of Inorganic Chemistry, 0, , .	2.0	1