Robert J Moon

List of Publications by Year
in descending order

98 papers	10,212 citations	134610 34 h-index	54771 88 g-index
100 all docs	100 docs citations	100 times ranked	11961 citing authors

#	Article	IF	Citations
1	Dewatering of cellulose nanofibrils using ultrasound. Cellulose, 2022, 29, 5575-5591.	2.4	7
2	Recent Developments in Cellulose Nanomaterial Composites. Advanced Materials, 2021, 33, e2000718.	11.1	70
3	Hollow glass spheres in sheet molding compound composites: Limitations and potential. Polymer Composites, 2021, 42, 1279-1291.	2.3	7
4	Scalable coating methods for enhancing glass fiberâ€"epoxy interactions with cellulose nanocrystals. Cellulose, 2021, 28, 4685-4700.	2.4	5
5	Rheological Aspects of Cellulose Nanomaterials: Governing Factors and Emerging Applications. Advanced Materials, 2021, 33, e2006052.	11.1	143
6	Mechanical enhancement of cellulose nanofibril (CNF) films through the addition of water-soluble polymers. Cellulose, 2021, 28, 6449.	2.4	8
7	Controlled Dispersion and Setting of Cellulose Nanofibril - Carboxymethyl Cellulose Pastes. Cellulose, 2021, 28, 9149-9168.	2.4	10
8	Semi-automatic image analysis of particle morphology of cellulose nanocrystals. Cellulose, 2021, 28, 2183-2201.	2.4	13
9	Optimized mechanical and impact performance of high strength tempo oxidized cellulose nanofibril (TOCNF)â€"epoxy laminates. Cellulose, 2021, 28, 10969-10985.	2.4	4
10	Transparent tempo oxidized cellulose nanofibril (TOCNF) composites with increased toughness and thickness by lamination. Cellulose, 2020, 27, 4389-4405.	2.4	15
11	Continuous Processing of Cellulose Nanofibril Sheets Through Conventional Single-Screw Extrusion. ACS Applied Polymer Materials, 2020, 2, 3365-3377.	2.0	8
12	Wet-Stacking Lamination of Multilayer Mechanically Fibrillated Cellulose Nanofibril (CNF) Sheets with Increased Mechanical Performance for Use in High-Strength and Lightweight Structural and Packaging Applications. ACS Applied Polymer Materials, 2019, 1, 2525-2534.	2.0	20
13	The Effect of Cellulose Nanocrystal Coatings on the Glass Fiberâ€"Epoxy Interphase. Materials, 2019, 12, 1951.	1.3	14
14	Freeze dried cellulose nanocrystal reinforced unsaturated polyester composites: challenges and potential. Cellulose, 2019, 26, 4391-4403.	2.4	18
15	Lightweight alternatives to glass fiber/epoxy sheet molding compound composites: A feasibility study. Journal of Composite Materials, 2019, 53, 1985-2000.	1.2	1
16	Fiberglass Composite Reinforcement with Nanocellulose Fiber Sizing. , 2019, , .		0
17	Processing of Hollow Glass Sphere/Polyester/Glass Fiber Sheet Molding Composites. , 2019, , .		0
18	Current characterization methods for cellulose nanomaterials. Chemical Society Reviews, 2018, 47, 2609-2679.	18.7	690

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19	Individually Dispersed Gold Nanoshell-Bearing Cellulose Nanocrystals with Tailorable Plasmon Resonance. Langmuir, 2018, 34, 4427-4436.	1.6	11
20	Cellulose nanocrystals effect on the stabilization of polyacrylonitrile composite films. Carbon, 2018, 134, 92-102.	5.4	18
21	Post-sulfonation of cellulose nanofibrils with a one-step reaction to improve dispersibility. Carbohydrate Polymers, 2018, 181, 247-255.	5.1	57
22	A continuum-based structural modeling approach for cellulose nanocrystals (CNCs). Journal of the Mechanics and Physics of Solids, 2018, 111, 308-332.	2.3	22
23	Influence of high loading of cellulose nanocrystals in polyacrylonitrile composite films. Cellulose, 2017, 24, 1745-1758.	2.4	30
24	Lightweight sheet molding compound (SMC) composites containing cellulose nanocrystals. Composite Structures, 2017, 160, 211-219.	3.1	29
25	Cellulose nanomaterials as additives for cementitious materials. , 2017, , 455-482.		38
26	Cellulose Nanocrystals for Lightweight Sheet Molding Compounds Composites. , 2017, , .		1
27	A comparative guide to controlled hydrophobization of cellulose nanocrystals via surface esterification. Cellulose, 2016, 23, 1825-1846.	2.4	66
28	The relationship between cellulose nanocrystal dispersion and strength. Construction and Building Materials, 2016, 119, 71-79.	3.2	127
29	The influence of cellulose nanocrystals on the microstructure of cement paste. Cement and Concrete Composites, 2016, 74, 164-173.	4.6	86
30	Overview of Cellulose Nanomaterials, Their Capabilities and Applications. Jom, 2016, 68, 2383-2394.	0.9	180
31	Introducing cellulose nanocrystals in sheet molding compounds (SMC). Composites Part A: Applied Science and Manufacturing, 2016, 88, 206-215.	3.8	31
32	Mechanical properties of cellulose nanomaterials studied by contact resonance atomic force microscopy. Cellulose, 2016, 23, 1031-1041.	2.4	31
33	Improving the interfacial and mechanical properties of short glass fiber/epoxy composites by coating the glass fibers with cellulose nanocrystals. EXPRESS Polymer Letters, 2016, 10, 587-597.	1.1	62
34	Processing and Characterization of Cellulose Nanocrystals/Polylactic Acid Nanocomposite Films. Materials, 2015, 8, 8106-8116.	1.3	89
35	Iridescent cellulose nanocrystal/polyethylene oxide composite films with low coefficient of thermal expansion. International Journal of Experimental and Computational Biomechanics, 2015, 3, 189.	0.4	3
36	Stable Low-Voltage Operation Top-Gate Organic Field-Effect Transistors on Cellulose Nanocrystal Substrates. ACS Applied Materials & Interfaces, 2015, 7, 4804-4808.	4.0	55

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37	Enhanced thermal stability of biomedical thermoplastic polyurethane with the addition of cellulose nanocrystals. Journal of Applied Polymer Science, 2015, 132, .	1.3	37
38	Evaluation of reactive force fields for prediction of the thermo-mechanical properties of cellulose IÎ². Computational Materials Science, 2015, 109, 330-340.	1.4	26
39	The influence of cellulose nanocrystal additions on the performance of cement paste. Cement and Concrete Composites, 2015, 56, 73-83.	4.6	215
40	A strategy for prediction of the elastic properties of epoxy-cellulose nanocrystal-reinforced fiber networks. Nordic Pulp and Paper Research Journal, 2014, 29, 85-94.	0.3	12
41	Anisotropy and temperature dependence of structural, thermodynamic, and elastic properties of crystalline cellulose I_{<i>Î²</i>}: a first-principles investigation. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 085012.	0.8	25
42	Design and characterization of cellulose nanocrystal-enhanced epoxy hardeners. Green Materials, 2014, 2, 193-205.	1.1	30
43	Microscopic Characterization of Nanofibers and Nanocrystals. Materials and Energy, 2014, , 159-180.	2.5	2
44	Characterization of Nanocomposites Structure. Materials and Energy, 2014, , 89-105.	2.5	3
45	Mechanical performance of cellulose nanofibril film-wood flake laminate. Holzforschung, 2014, 68, 283-290.	0.9	12
46	Efficient recyclable organic solar cells on cellulose nanocrystal substrates with a conducting polymer top electrode deposited by film-transfer lamination. Organic Electronics, 2014, 15, 661-666.	1.4	108
47	Effects of Crystal Orientation on Cellulose Nanocrystalsâ€“Cellulose Acetate Nanocomposite Fibers Prepared by Dry Spinning. Biomacromolecules, 2014, 15, 3827-3835.	2.6	84
48	Thermal Conductivity in Nanostructured Films: From Single Cellulose Nanocrystals to Bulk Films. Biomacromolecules, 2014, 15, 4096-4101.	2.6	119
49	Contrast Enhanced Microscopy Digital Image Correlation: A General Method to Contact-Free Coefficient of Thermal Expansion Measurement of Polymer Films. ACS Applied Materials & Interfaces, 2014, 6, 4856-4863.	4.0	16
50	Tensile strength of IÎ² crystalline cellulose predicted by molecular dynamics simulation. Cellulose, 2014, 21, 2233-2245.	2.4	112
51	Polarized Light in the Contact Free Determination of Thermal Expansion of Organized Cellulose Nanocrystal Materials. , 2014, , .		0
52	Crystalline cellulose elastic modulus predicted by atomistic models of uniform deformation and nanoscale indentation. Cellulose, 2013, 20, 43-55.	2.4	110
53	Atomistic Simulation of Frictional Sliding Between Cellulose IÎ² Nanocrystals. Tribology Letters, 2013, 52, 395-405.	1.2	16
54	Anisotropy of the elastic properties of crystalline cellulose IÎ² from first principles density functional theory with Van der Waals interactions. Cellulose, 2013, 20, 2703-2718.	2.4	150

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55	Recyclable organic solar cells on cellulose nanocrystal substrates. Scientific Reports, 2013, 3, 1536.	1.6	270
56	Reusable photocatalytic titanium dioxideâ€"cellulose nanofiber films. Journal of Colloid and Interface Science, 2013, 399, 92-98.	5.0	70
57	Thermal Expansion of Self-Organized and Shear-Oriented Cellulose Nanocrystal Films. Biomacromolecules, 2013, 14, 2900-2908.	2.6	146
58	Development of the metrology and imaging of cellulose nanocrystals. Measurement Science and Technology, 2011, 22, 024005.	1.4	89
59	Uncertainty quantification in nanomechanical measurements using the atomic force microscope. Nanotechnology, 2011, 22, 455703.	1.3	98
60	Cellulose nanomaterials review: structure, properties and nanocomposites. Chemical Society Reviews, 2011, 40, 3941.	18.7	5,132
61	Self-assembly and alignment of semiconductor nanoparticles on cellulose nanocrystals. Journal of Materials Science, 2011, 46, 5672-5679.	1.7	37
62	Calculation of single chain cellulose elasticity using fully atomistic modeling. Tappi Journal, 2011, 10, 37-42.	0.2	10
63	Influence of chemical treatments on moisture-induced dimensional change and elastic modulus of earlywood and latewood. Holzforschung, 2010, 64, .	0.9	5
64	Atomic Force Microscopy Characterization of Cellulose Nanocrystals. Langmuir, 2010, 26, 4480-4488.	1.6	295
65	Natural Biopolymers: Novel Templates for the Synthesis of Nanostructures. Langmuir, 2010, 26, 8497-8502.	1.6	167
66	Evaluation of crack-tip stress fields on microstructural-scale fracture in Alâ€"Al2O3 interpenetrating network composites. Acta Materialia, 2009, 57, 570-581.	3.8	14
67	Nanoindentation near the edge. Journal of Materials Research, 2009, 24, 1016-1031.	1.2	86
68	Experimental method to account for structural compliance in nanoindentation measurements. Journal of Materials Research, 2008, 23, 1113-1127.	1.2	116
69	Fatigue crack propagation resistance in homogeneous and graded aluminaâ€"epoxy composites. International Journal of Fatigue, 2007, 29, 158-167.	2.8	15
70	Deformation of a hard coating on ductile substrate system during nanoindentation: Role of the coating microstructure. Journal of Materials Research, 2006, 21, 437-447.	1.2	32
71	Sliding wear of calcium Î±-sialon ceramics. Wear, 2006, 260, 387-400.	1.5	13
72	Sliding wear behaviour of Ca Î±-sialon ceramics at 600Â°C in air. Wear, 2006, 260, 1356-1360.	1.5	16

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73	Fluorescence spectroscopy analysis of Alâ€"Al2O3 composites with coarse interpenetrating networks. Journal of Materials Science, 2006, 41, 7571-7579.	1.7	2
74	Layer orientation effects on the R-curve behavior of multilayered aluminaâ€"zirconia composites. Composites Part B: Engineering, 2006, 37, 449-458.	5.9	6
75	On the mechanical properties of aluminaâ€"epoxy composites with an interpenetrating network structure. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 393, 170-178.	2.6	55
76	Finite element simulations of crack propagation in functionally graded materials under flexural loading. Engineering Fracture Mechanics, 2005, 72, 2444-2467.	2.0	43
77	Crack propagation in graded composites. Composites Science and Technology, 2005, 65, 201-220.	3.8	103
78	Curved crack propagation in homogeneous and graded materials. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 939-950.	1.7	9
79	Al-Al2O3 Composites with Interpenetrating Network Structures: Composite Modulus Estimation. Journal of the American Ceramic Society, 2005, 88, 666-674.	1.9	47
80	Fracture and Fatigue Crack Propagation in Graded Composites. Materials Science Forum, 2005, 492-493, 573-580.	0.3	9
81	Effect of Microstructure on Sliding Wear of Ca Î±-SiAlON Ceramics. Key Engineering Materials, 2005, 280-283, 1253-1258.	0.4	1
82	Fatigue Crack Propagation in Graded Composites. , 2004, , 331-336.		2
83	Characterization of surface contact-induced fracture in ceramics using a focused ion beam miller. Wear, 2003, 255, 651-656.	1.5	24
84	Role of microstructure in the grinding and polishing of Î±-sialon ceramics. Journal of the European Ceramic Society, 2003, 23, 2351-2360.	2.8	30
85	Scratch Damage in Ceramics: Role of Microstructure. Journal of the American Ceramic Society, 2003, 86, 141-148.	1.9	20
86	Application of Focused Ion Beam Miller in Fracture Characterization. Key Engineering Materials, 2003, 247, 297-300.	0.4	0
87	Weight Function Analysis on the Râ€Curve Behavior of Multilayered Aluminaâ€"Zirconia Composites. Journal of the American Ceramic Society, 2002, 85, 1505-1511.	1.9	33
88	R-curve behavior in aluminaâ€"zirconia composites with repeating graded layers. Engineering Fracture Mechanics, 2002, 69, 1647-1665.	2.0	36
89	Fracture resistance curve behavior of multilayered aluminaâ€"zirconia composites produced by centrifugation. Acta Materialia, 2001, 49, 995-1003.	3.8	28
90	Texture development in Si3N4/BN fibrous monolithic ceramics. Journal of Materials Science, 2000, 35, 3365-3371.	1.7	26

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91	Comparison of <i>R</i>â€Curves from Singleâ€Edge Vâ€Notchedâ€Beam (SEVNB) and Surfaceâ€Crackâ€inâ€Flexure (SCF) Fractureâ€Toughness Test Methods on Multilayered Aluminaâ€"Zirconia Composites. Journal of the American Ceramic Society, 2000, 83, 445-447.	1.9	29
92	Thermal instability of (Bi,Pb)₂Sr₂Ca₂Cu₃O<i>x</i> in contact with silver. Journal of Materials Research, 1999, 14, 652-664.	1.2	13
93	Layer Geometry within Multilayer Composites Produced by Centrifugal Consolidation. Materials Science Forum, 1999, 308-311, 193-198.	0.3	2
94	Fracture behavior of centrifugally cast multilayer alumina/alumina composites. Scripta Materialia, 1999, 41, 749-754.	2.6	2
95	Fracture and Fatigue Crack Propagation in Graded Composites. Materials Science Forum, 0, , 573-580.	0.3	1
96	Comparative Study of Lightweight Glass Fiber and Basalt Fiber Sheet Molding Compound (SMC) Composites Containing Cellulose Nanocrystals. , 0, , .		0
97	Enhancing the Interface in Glass Fiber/Epoxy Composites with Nanocellulose. , 0, , .		0
98	Nanocellulose Fiber Sizing for Fiberglass Composites. , 0, , .		0