

# Derek G Gray

## List of Publications by Year in descending order

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103  
papers

16,332  
citations

28274

55  
h-index

29157

104  
g-index

107  
all docs

107  
docs citations

107  
times ranked

11410  
citing authors

#	ARTICLE	IF	CITATIONS
1	Isolation and utilization of cellulosic elements from the plant cell wall. <i>Botany</i> , 2020, 98, 77-80.	1.0	4
2	Cellulose nanocrystal research; A personal perspective. <i>Carbohydrate Polymers</i> , 2020, 250, 116888.	10.2	16
3	Surface Charge Influence on the Phase Separation and Viscosity of Cellulose Nanocrystals. <i>Langmuir</i> , 2018, 34, 3925-3933.	3.5	120
4	Order and gelation of cellulose nanocrystal suspensions: an overview of some issues. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018, 376, 20170038.	3.4	33
5	In Situ Preparation of Silver Nanoparticles in Paper by Reduction with Alkaline Glucose Solutions. <i>ACS Omega</i> , 2018, 3, 9449-9452.	3.5	15
6	Hybrid fluorescent nanoparticles from quantum dots coupled to cellulose nanocrystals. <i>Cellulose</i> , 2017, 24, 1287-1293.	4.9	43
7	Recent Advances in Chiral Nematic Structure and Iridescent Color of Cellulose Nanocrystal Films. <i>Nanomaterials</i> , 2016, 6, 213.	4.1	102
8	Twist-Bend Stage in the Relaxation of Sheared Chiral Nematic Suspensions of Cellulose Nanocrystals. <i>ACS Omega</i> , 2016, 1, 212-219.	3.5	21
9	Chiral Nematic Structure of Cellulose Nanocrystal Suspensions and Films; Polarized Light and Atomic Force Microscopy. <i>Materials</i> , 2015, 8, 7873-7888.	2.9	91
10	Droplets of cellulose nanocrystal suspensions on drying give iridescent 3-D "coffee-stain" rings. <i>Cellulose</i> , 2015, 22, 1103-1107.	4.9	99
11	Functionalization of cellulose nanocrystal films via "thiol-ene" click reaction. <i>RSC Advances</i> , 2014, 4, 6965.	3.6	53
12	Formation of Chiral Nematic Films from Cellulose Nanocrystal Suspensions Is a Two-Stage Process. <i>Langmuir</i> , 2014, 30, 9256-9260.	3.5	178
13	Isolation and handedness of helical coiled cellulosic thickenings from plant petiole tracheary elements. <i>Cellulose</i> , 2014, 21, 3181-3191.	4.9	23
14	Chiral nematic phase formation by aqueous suspensions of cellulose nanocrystals prepared by oxidation with ammonium persulfate. <i>Cellulose</i> , 2014, 21, 2567-2577.	4.9	88
15	Cellulose Nanocrystals Incorporating Fluorescent Methylcoumarin Groups. <i>ACS Sustainable Chemistry and Engineering</i> , 2013, 1, 1160-1164.	6.7	78
16	Estimation of the surface sulfur content of cellulose nanocrystals prepared by sulfuric acid hydrolysis. <i>Cellulose</i> , 2013, 20, 785-794.	4.9	226
17	Cu-Coupling catalyzed by robust Au nanoparticles covalently bonded to HS-functionalized cellulose nanocrystalline films. <i>Beilstein Journal of Organic Chemistry</i> , 2013, 9, 1388-1396.	2.2	67
18	SEM imaging of chiral nematic films cast from cellulose nanocrystal suspensions. <i>Cellulose</i> , 2012, 19, 1599-1605.	4.9	212

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19	Viscosity measurements of dilute aqueous suspensions of cellulose nanocrystals using a rolling ball viscometer. <i>Cellulose</i> , 2012, 19, 1557-1565.	4.9	25
20	Gelation of cellulose nanocrystal suspensions in glycerol. <i>Cellulose</i> , 2012, 19, 687-694.	4.9	59
21	Bactericidal Paper Impregnated with Silver Nanoparticles for Point-of-Use Water Treatment. <i>Environmental Science &amp; Technology</i> , 2011, 45, 1992-1998.	10.0	461
22	Reinforcement with cellulose nanocrystals of poly(vinyl alcohol) hydrogels prepared by cyclic freezing and thawing. <i>Soft Matter</i> , 2011, 7, 2373.	2.7	189
23	Electrospinning of fluorescent fibers from CdSe/ZnS quantum dots in cellulose triacetate. <i>Journal of Applied Polymer Science</i> , 2011, 119, 803-810.	2.6	22
24	Nanocelluloses: A New Family of Nature-Based Materials. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 5438-5466.	13.8	3,550
25	Contact Angle Measurements on Smooth Nanocrystalline Cellulose (I) Thin Films. <i>Journal of Adhesion Science and Technology</i> , 2011, 25, 699-708.	2.6	83
26	Polyelectrolyte Multilayer Films Containing Cellulose: A Review. <i>ACS Symposium Series</i> , 2010, , 95-114.	0.5	7
27	Model Cellulose I Surfaces: A Review. <i>ACS Symposium Series</i> , 2010, , 75-93.	0.5	5
28	Protein alignment using cellulose nanocrystals: practical considerations and range of application. <i>Journal of Biomolecular NMR</i> , 2010, 47, 195-204.	2.8	30
29	Composition of lignocellulosic surfaces: comments on the interpretation of XPS spectra. <i>Cellulose</i> , 2010, 17, 117-124.	4.9	25
30	Direct Surface Force Measurements of Polyelectrolyte Multilayer Films Containing Nanocrystalline Cellulose. <i>Langmuir</i> , 2010, 26, 17190-17197.	3.5	59
31	Surface Grafting of Cellulose Nanocrystals with Poly(ethylene oxide) in Aqueous Media. <i>Langmuir</i> , 2010, 26, 13450-13456.	3.5	219
32	Incorporation into paper of cellulose triacetate films containing semiconductor nanoparticles. <i>Cellulose</i> , 2009, 16, 319-326.	4.9	22
33	Birefringence in spin-coated films containing cellulose nanocrystals. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2008, 325, 44-51.	4.7	147
34	Transcrystallization of polypropylene at cellulose nanocrystal surfaces. <i>Cellulose</i> , 2008, 15, 297-301.	4.9	113
35	Cationic surface functionalization of cellulose nanocrystals. <i>Soft Matter</i> , 2008, 4, 2238-2244.	2.7	494
36	Triphase Equilibria in Cellulose Nanocrystal Suspensions Containing Neutral and Charged Macromolecules. <i>Macromolecules</i> , 2007, 40, 3429-3436.	4.8	36

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37	CdSe/ZnS QDs Embedded in Cellulose Triacetate Films with Hydrophilic Surfaces. <i>Chemistry of Materials</i> , 2007, 19, 4270-4276.	6.7	33
38	Dispersion of cellulose nanocrystals in polar organic solvents. <i>Cellulose</i> , 2007, 14, 109-113.	4.9	196
39	Morphological and Optical Characterization of Polyelectrolyte Multilayers Incorporating Nanocrystalline Cellulose. <i>Biomacromolecules</i> , 2006, 7, 2522-2530.	5.4	339
40	Induced Phase Separation in Low-Ionic-Strength Cellulose Nanocrystal Suspensions Containing High-Molecular-Weight Blue Dextrans. <i>Langmuir</i> , 2006, 22, 8690-8695.	3.5	44
41	Surface Forces Measurements of Spin-Coated Cellulose Thin Films with Different Crystallinity. <i>Langmuir</i> , 2006, 22, 3154-3160.	3.5	66
42	Friction and forces between cellulose model surfaces: A comparison. <i>Journal of Colloid and Interface Science</i> , 2006, 303, 117-123.	9.4	79
43	Formation of cellulose-based electrostatic layer-by-layer films in a magnetic field. <i>Science and Technology of Advanced Materials</i> , 2006, 7, 319-321.	6.1	117
44	Preface to the International Chemical Congress of Pacific Basin Societies (Pacifichem2005). <i>Science and Technology of Advanced Materials</i> , 2006, 7, 303-304.	6.1	0
45	Induced phase separation in cellulose nanocrystal suspensions containing ionic dye species. <i>Cellulose</i> , 2006, 13, 629-635.	4.9	26
46	Critical comparison of methods for surface coverage by extractives and lignin in pulps by X-ray photoelectron spectroscopy (XPS). <i>Holzforschung</i> , 2006, 60, 149-155.	1.9	26
47	AFM of adsorbed polyelectrolytes on cellulose I surfaces spin-coated on silicon wafers. <i>Cellulose</i> , 2005, 12, 127-134.	4.9	41
48	Effect of Reaction Conditions on the Properties and Behavior of Wood Cellulose Nanocrystal Suspensions. <i>Biomacromolecules</i> , 2005, 6, 1048-1054.	5.4	1,369
49	Parabolic Focal Conics in Self-Assembled Solid Films of Cellulose Nanocrystals. <i>Langmuir</i> , 2005, 21, 5555-5561.	3.5	125
50	Smooth model cellulose I surfaces from nanocrystal suspensions. <i>Cellulose</i> , 2003, 10, 299-306.	4.9	176
51	Structural and Mechanical Properties of Polyelectrolyte Multilayer Films Studied by AFM. <i>Macromolecules</i> , 2003, 36, 8819-8824.	4.8	100
52	Influence of Dextran on the Phase Behavior of Suspensions of Cellulose Nanocrystals. <i>Macromolecules</i> , 2002, 35, 7400-7406.	4.8	89
53	Interfacial Tension between Isotropic and Anisotropic Phases of a Suspension of Rodlike Particles. <i>Langmuir</i> , 2002, 18, 633-637.	3.5	50
54	Cellulose Crystallites. <i>Chemistry - A European Journal</i> , 2001, 7, 1831-1836.	3.3	192

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55	Induced Circular Dichroism of Chiral Nematic Cellulose Films. <i>Cellulose</i> , 2001, 8, 5-12.	4.9	76
56	Cellulose Crystallites: A New and Robust Liquid Crystalline Medium for the Measurement of Residual Dipolar Couplings. <i>Journal of the American Chemical Society</i> , 2000, 122, 5224-5225.	13.7	150
57	Effect of microcrystallite preparation conditions on the formation of colloid crystals of cellulose. <i>Cellulose</i> , 1998, 5, 19-32.	4.9	895
58	A Method To Preserve the Chiral Nematic Order of Lyotropic Ethylcellulose and (Acetyl)(ethyl)cellulose Mesophases in Solid Films. <i>Chemistry of Materials</i> , 1998, 10, 1720-1726.	6.7	20
59	Chiral Characteristics of Thin Wood Sections. <i>Holzforschung</i> , 1997, 51, 1-5.	1.9	13
60	Induced Circular Dichroism of Isotropic and Magnetically-Oriented Chiral Nematic Suspensions of Cellulose Crystallites. <i>Langmuir</i> , 1997, 13, 3029-3034.	3.5	100
61	Effect of Counterions on Ordered Phase Formation in Suspensions of Charged Rodlike Cellulose Crystallites. <i>Langmuir</i> , 1997, 13, 2404-2409.	3.5	258
62	Title is missing!. <i>Cellulose</i> , 1997, 4, 209-220.	4.9	187
63	Effects of Ionic Strength on the Isotropic <sup>*</sup> Chiral Nematic Phase Transition of Suspensions of Cellulose Crystallites. <i>Langmuir</i> , 1996, 12, 2076-2082.	3.5	672
64	Homogeneous alkylation of cellulose in lithium chloride/dimethyl sulfoxide solvent with dimethyl sodium activation. A proposal for the mechanism of cellulose dissolution in LiCl/Me <sub>2</sub> SO. <i>Carbohydrate Research</i> , 1995, 268, 319-323.	2.3	70
65	Chiral nematic suspensions of cellulose crystallites; phase separation and magnetic field orientation. <i>Liquid Crystals</i> , 1994, 16, 127-134.	2.2	416
66	Characterization of hydrogen bonding in cellulose-synthetic polymer blend systems with regioselectively substituted methylcellulose. <i>Macromolecules</i> , 1994, 27, 210-215.	4.8	177
67	Fluorescence emission from mechanical pulp sheets. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1993, 73, 59-65.	3.9	53
68	High-resolution solid-state <sup>13</sup> C NMR study of ethylcellulose films. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1993, 31, 671-676.	2.1	3
69	A matrix method for modelling liquid crystal textures. <i>Liquid Crystals</i> , 1993, 13, 23-30.	2.2	7
70	Atomic force microscopy of cellulose microfibrils: comparison with transmission electron microscopy. <i>Polymer</i> , 1992, 33, 4639-4642.	3.8	178
71	Facile method for the preparation of tri-O-(alkyl)cellulose. <i>Journal of Applied Polymer Science</i> , 1992, 45, 417-423.	2.6	41
72	The preparation of O-methyl- and O-ethyl-celluloses having controlled distribution of substituents. <i>Carbohydrate Research</i> , 1991, 220, 173-183.	2.3	81

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73	Preparation and chiroptical properties of tritylated cellulose derivatives. <i>Macromolecules</i> , 1990, 23, 1452-1457.	4.8	42
74	Properties of Carbon Fiber Surfaces. <i>ACS Symposium Series</i> , 1989, , 168-184.	0.5	9
75	Optical rotatory dispersion from liquid crystalline solutions and films of hydroxypropylcellulose. <i>Liquid Crystals</i> , 1989, 6, 717-726.	2.2	3
76	Chiroptical filters from aqueous (hydroxypropyl) cellulose liquid crystals. <i>Journal of Applied Polymer Science</i> , 1989, 37, 2517-2527.	2.6	18
77	Chiroptical behavior of (acetyl)(ethyl)cellulose liquid-crystalline solutions in chloroform. <i>Macromolecules</i> , 1989, 22, 2086-2090.	4.8	55
78	Preparation and liquid-crystalline properties of (acetyl)(ethyl)cellulose. <i>Macromolecules</i> , 1989, 22, 2082-2086.	4.8	39
79	Induced CD provides evidence for helical solution conformation in cellulosic chains. <i>Biopolymers</i> , 1988, 27, 479-491.	2.4	22
80	Cholesteric order in gels and films of regenerated cellulose. <i>Biopolymers</i> , 1988, 27, 1363-1374.	2.4	41
81	Electron microscopic evidence for cholesteric structure in films of cellulose and cellulose acetate. <i>Biopolymers</i> , 1988, 27, 1999-2004.	2.4	36
82	Circular reflectivity from the cholesteric liquid crystalline phase of (2-ethoxypropyl)cellulose. <i>Macromolecules</i> , 1988, 21, 1251-1255.	4.8	40
83	Adsorption of n-alkanes on carbon fibers at zero surface coverage. <i>Langmuir</i> , 1988, 4, 743-748.	3.5	39
84	Cholesteric properties of cellulose acetate and triacetate in trifluoroacetic acid. <i>Macromolecules</i> , 1988, 21, 2914-2917.	4.8	41
85	Solid cholesteric films cast from aqueous (hydroxypropyl)cellulose. <i>Macromolecules</i> , 1987, 20, 33-38.	4.8	86
86	Optical properties of (acetoxypopyl)cellulose mesophases: factors influencing the cholesteric pitch. <i>Polymer</i> , 1985, 26, 1435-1442.	3.8	39
87	Chemical characteristics of cellulosic liquid crystals. <i>Faraday Discussions of the Chemical Society</i> , 1985, 79, 257.	2.2	70
88	Liquid crystalline phase transition of a semiflexible polymer: acetoxypopyl cellulose. <i>Macromolecules</i> , 1985, 18, 1753-1759.	4.8	42
89	Optical properties of hydroxypropyl cellulose liquid crystals. I. Cholesteric pitch and polymer concentration. <i>Macromolecules</i> , 1984, 17, 1512-1520.	4.8	143
90	Title is missing!. <i>Die Makromolekulare Chemie</i> , 1983, 184, 1727-1740.	1.1	36

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91	The propanoate ester of (2-hydroxypropyl)cellulose: a thermotropic cholesteric polymer that reflects visible light at ambient temperatures. <i>Macromolecules</i> , 1982, 15, 1262-1264.	4.8	81
92	Surface Properties of Cellulose and Wood Fibers. <i>ACS Symposium Series</i> , 1982, , 421-434.	0.5	2
93	Liquid crystal formation from the benzoic acid ester of hydroxypropylcellulose. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1982, 3, 449-455.	1.1	24
94	Surface characterization of poly(ethylene terephthalate) film by inverse gas chromatography. <i>Journal of Applied Polymer Science</i> , 1982, 27, 71-78.	2.6	31
95	Cholesteric liquid crystalline phases based on (acetoxypopyl)cellulose. <i>Macromolecules</i> , 1981, 14, 715-719.	4.8	141
96	The adsorption of hydrocarbons on cellophane. <i>Journal of Colloid and Interface Science</i> , 1981, 82, 318-325.	9.4	86
97	Adsorption of n-alkanes at zero surface coverage on cellulose paper and wood fibers. <i>Journal of Colloid and Interface Science</i> , 1980, 77, 353-362.	9.4	545
98	Ordered Phase Formation in Concentrated Hydroxypropylcellulose Solutions. <i>Macromolecules</i> , 1980, 13, 69-73.	4.8	325
99	Adsorption, spreading pressure, and london force interactions of hydrocarbons on cellulose and wood fiber surfaces. <i>Journal of Colloid and Interface Science</i> , 1979, 71, 93-106.	9.4	156
100	Gas Chromatographic and Static Measurements of Solute Activity for a Polymeric Liquid-Crystalline Phase. <i>Macromolecules</i> , 1979, 12, 562-566.	4.8	30
101	The surface tension of aqueous hydroxypropyl cellulose solutions. <i>Journal of Colloid and Interface Science</i> , 1978, 67, 255-265.	9.4	84
102	Gas chromatographic measurements of polymer structure and interactions. <i>Progress in Polymer Science</i> , 1977, 5, 1-60.	24.7	80
103	Liquid Crystalline Structure In Aqueous Hydroxypropyl Cellulose Solutions. <i>Molecular Crystals and Liquid Crystals</i> , 1976, 34, 97-103.	0.8	362