Alfred D French

List of Publications by Year
in descending order

136 papers	9,665 citations	43973 48 h-index	39575 94 g-index
144 all docs	144 docs citations	144 times ranked	7796 citing authors

#	Article	IF	Citations
1	Stepwise allomorphic transformations by alkaline and ethylenediamine treatments on bamboo crystalline cellulose for enhanced enzymatic digestibility. Industrial Crops and Products, 2022, 177, 114450.	2.5	16
2	Synthesis and characterization of TEMPO-oxidized peptide-cellulose conjugate biosensors for detecting human neutrophil elastase. Cellulose, 2022, 29, 1293-1305.	2.4	11
3	Structure/Function Analysis of Truncated Amino-Terminal ACE2 Peptide Analogs That Bind to SARS-CoV-2 Spike Glycoprotein. Molecules, 2022, 27, 2070.	1.7	3
4	Detection of Human Neutrophil Elastase by Fluorescent Peptide Sensors Conjugated to TEMPO-Oxidized Nanofibrillated Cellulose. International Journal of Molecular Sciences, 2022, 23, 3101.	1.8	8
5	Contributions of Dexter French (1918â€“1981) to cycloamylose/cyclodextrin and starch science. Carbohydrate Polymers, 2021, 257, 117620.	5.1	16
6	N-Methylmorpholine-N-oxide (NMMO): hazards in practice and pitfalls in theory. Cellulose, 2021, 28, 5985-5990.	2.4	14
7	Comparison of cellooligosaccharide conformations in complexes with proteins with energy maps for cellobiose. Carbohydrate Polymers, 2021, 264, 118004.	5.1	12
8	Combining Computational Chemistry and Crystallography for a Better Understanding of the Structure of Cellulose. Advances in Carbohydrate Chemistry and Biochemistry, 2021, 80, 15-93.	0.4	1
9	Conformational analysis of xylobiose by DFT quantum mechanics. Cellulose, 2020, 27, 1207-1224.	2.4	14
10	Cellulose nanofibers from rapidly microwave-delignified energy cane bagasse and their application in drilling fluids as rheology and filtration modifiers. Industrial Crops and Products, 2020, 150, 112378.	2.5	31
11	Increment in evolution of cellulose crystallinity analysis. Cellulose, 2020, 27, 5445-5448.	2.4	214
12	Computerized Molecular Modeling of Carbohydrates. Methods in Molecular Biology, 2020, 2149, 513-539.	0.4	1
13	The quintessential sustainable resource: cellulose, and the journal named for it. Cellulose, 2019, 26, 1-3.	2.4	39
14	Nanocellulose as a colorimetric biosensor for effective and facile detection of human neutrophil elastase. Carbohydrate Polymers, 2019, 216, 360-368.	5.1	42
15	Structural variations of cotton cellulose nanocrystals from deep eutectic solvent treatment: micro and nano scale. Cellulose, 2019, 26, 861-876.	2.4	73
16	Atomic resolution of cotton cellulose structure enabled by dynamic nuclear polarization solid-state NMR. Cellulose, 2019, 26, 329-339.	2.4	44
17	Effects of ball milling on the structure of cotton cellulose. Cellulose, 2019, 26, 305-328.	2.4	253
18	pH-Responsive Water-Based Drilling Fluids Containing Bentonite and Chitin Nanocrystals. ACS Sustainable Chemistry and Engineering, 2018, 6, 3783-3795.	3.2	69

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19	Thermally Induced Structural Transitions in Cotton Fiber Revealed by a Finite Mixture Model of Tenacity Distribution. ACS Sustainable Chemistry and Engineering, 2018, 6, 7420-7431.	3.2	1
20	Comparison and validation of Fourier transform infrared spectroscopic methods for monitoring secondary cell wall cellulose from cotton fibers. Cellulose, 2018, 25, 49-64.	2.4	27
21	Cotton Fiber Structure. , 2018, , 13-39.		9
22	Surface wetting behavior of nanocellulose-based composite films. Cellulose, 2018, 25, 5071-5087.	2.4	27
23	Structure/Function Analysis of Cotton-Based Peptide-Cellulose Conjugates: Spatiotemporal/Kinetic Assessment of Protease Aerogels Compared to Nanocrystalline and Paper Cellulose. International Journal of Molecular Sciences, 2018, 19, 840.	1.8	21
24	2,4â€²:2â€²,4 Dianhydride of 3-keto-glucoside, a precursor to chromophores of aged, yellow cellulose, and its weak interactions. Cellulose, 2017, 24, 1227-1234.	2.4	10
25	Comparative physical and chemical analyses of cotton fibers from two near isogenic upland lines differing in fiber wall thickness. Cellulose, 2017, 24, 2385-2401.	2.4	31
26	Quantum mechanics models of the methanol dimer: O Hâ‹¯O hydrogen bonds of Î²- d -glucose moieties from crystallographic data. Carbohydrate Research, 2017, 443-444, 87-94.	1.1	10
27	Glucose, not cellobiose, is the repeating unit of cellulose and why that is important. Cellulose, 2017, 24, 4605-4609.	2.4	196
28	Human neutrophil elastase detection with fluorescent peptide sensors conjugated to cellulosic and nanocellulosic materials: part II, structure/function analysis. Cellulose, 2016, 23, 1297-1309.	2.4	29
29	Cellulose nanofibers reinforced sodium alginate-polyvinyl alcohol hydrogels: Core-shell structure formation and property characterization. Carbohydrate Polymers, 2016, 147, 155-164.	5.1	116
30	Segal crystallinity index revisited by the simulation of X-ray diffraction patterns of cotton cellulose IÎ² and cellulose II. Carbohydrate Polymers, 2016, 135, 1-9.	5.1	417
31	Synthesis and Molecular Structure of the 5-Methoxycarbonylpentyl Î±-Glycoside of the Upstream, Terminal Moiety of the O-Specific Polysaccharide of Vibrio cholerae O1, Serotype Inaba. Molecules, 2015, 20, 2892-2902.	1.7	2
32	Chromophores in lignin-free cellulosic materials belong to three compound classes. Chromophores in cellulosics, XII. Cellulose, 2015, 22, 1053-1062.	2.4	56
33	Characterization of cellulose I/II hybrid fibers isolated from energycane bagasse during the delignification process: Morphology, crystallinity and percentage estimation. Carbohydrate Polymers, 2015, 133, 438-447.	5.1	117
34	Kinetic and structural analysis of fluorescent peptides on cotton cellulose nanocrystals as elastase sensors. Carbohydrate Polymers, 2015, 116, 278-285.	5.1	35
35	Energy Maps for Glycosidic Linkage Conformations. Methods in Molecular Biology, 2015, 1273, 333-358.	0.4	5
36	Computerized Models of Carbohydrates. , 2015, , 1397-1440.		0

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37	Computerized Models of Carbohydrates. , 2014, , 1-38.		2
38	Idealized powder diffraction patterns for cellulose polymorphs. Cellulose, 2014, 21, 885-896.	2.4	2,081
39	Electron (charge) density studies of cellulose models. Cellulose, 2014, 21, 1051-1063.	2.4	33
40	Effect of microfibril twisting on theoretical powder diffraction patterns of cellulose IÎ². Cellulose, 2014, 21, 879-884.	2.4	62
41	100Âyears of cellulose fiber diffraction and the emergence of complementary techniques. Cellulose, 2014, 21, 1087-1089.	2.4	3
42	Chromophores in cellulosics, XI: isolation and identification of residual chromophores from bacterial cellulose. Cellulose, 2014, 21, 2271-2283.	2.4	25
43	Unraveling Cellulose Microfibrils: A Twisted Tale. Biopolymers, 2013, 99, 746-756.	1.2	59
44	Nanocellulose-Based Biosensors: Design, Preparation, and Activity of Peptide-Linked Cotton Cellulose Nanocrystals Having Fluorimetric and Colorimetric Elastase Detection Sensitivity. Engineering, 2013, 05, 20-28.	0.4	62
45	Cellulose polymorphy, crystallite size, and the Segal Crystallinity Index. Cellulose, 2013, 20, 583-588.	2.4	663
46	Characterization of cellulose II nanoparticles regenerated from 1-butyl-3-methylimidazolium chloride. Carbohydrate Polymers, 2013, 94, 773-781.	5.1	154
47	Chemistry of 5,8-dihydroxy-[1,4]-naphthoquinone, a Key Chromophore in Aged Cellulosics. Mini-Reviews in Organic Chemistry, 2013, 10, 302-308.	0.6	12
48	Chemistry of 2,5-dihydroxy-[1,4]-benzoquinone, a Key Chromophore in Aged Cellulosics. Mini-Reviews in Organic Chemistry, 2013, 10, 309-315.	0.6	20
49	Combining Computational Chemistry and Crystallography for a Better Understanding of the Structure of Cellulose. Advances in Carbohydrate Chemistry and Biochemistry, 2012, 67, 19-93.	0.4	28
50	About the structure of cellulose: debating the Lindman hypothesis. Cellulose, 2012, 19, 589-598.	2.4	232
51	Comparative properties of cellulose nano-crystals from native and mercerized cotton fibers. Cellulose, 2012, 19, 1173-1187.	2.4	192
52	Conformational analysis of cellobiose by electronic structure theories. Carbohydrate Research, 2012, 350, 68-76.	1.1	55
53	Immobilization of lysozyme-cellulose amide-linked conjugates on cellulose I and II cotton nanocrystalline preparations. Cellulose, 2012, 19, 495-506.	2.4	61
54	Diffraction from nonperiodic models of cellulose crystals. Cellulose, 2012, 19, 319-336.	2.4	86

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55	Youngâ€™s modulus calculations for cellulose IÎ² by MM3 and quantum mechanics. Cellulose, 2011, 18, 505-516.	2.4	53
56	In defense of adiabatic Ï•/Ïˆ mapping for cellobiose and other disaccharides. Cellulose, 2011, 18, 889-896.	2.4	8
57	Hydroxyl orientations in cellobiose and other polyhydroxyl compounds: modeling versus experiment. Cellulose, 2011, 18, 897-909.	2.4	18
58	Covalent attachment of lysozyme to cotton/cellulose materials: protein verses solid support activation. Cellulose, 2011, 18, 1239-1249.	2.4	36
59	Chromophores in cellulosics, VI. First isolation and identification of residual chromophores from aged cotton linters. Cellulose, 2011, 18, 1623-1633.	2.4	50
60	Computerized Molecular Modeling of Carbohydrates. Methods in Molecular Biology, 2011, 715, 21-42.	0.4	8
61	Modelling the Effect of Solvents on Carbohydrates. Mini-Reviews in Organic Chemistry, 2011, 8, 249-255.	0.6	5
62	Experimental and theoretical electron density distribution of Î±,Î±-trehalose dihydrate. Carbohydrate Research, 2010, 345, 1469-1481.	1.1	13
63	Cellulose and the twofold screw axis: modeling and experimental arguments. Cellulose, 2009, 16, 959-973.	2.4	62
64	Twisting of glycosidic bonds by hydrolases. Carbohydrate Research, 2009, 344, 2157-2166.	1.1	23
65	Comparison of different force fields for the study of disaccharides. Carbohydrate Research, 2009, 344, 2217-2228.	1.1	87
66	Evaluation of Density Functionals and Basis Sets for Carbohydrates. Journal of Chemical Theory and Computation, 2009, 5, 679-692.	2.3	183
67	Conformational Flexibility of Soluble Cellulose Oligomers: Chain Length and Temperature Dependence. Journal of the American Chemical Society, 2009, 131, 14786-14794.	6.6	102
68	1H and 13C solid-state NMR of Gossypium barbadense (Pima) cotton. Journal of Molecular Structure, 2008, 878, 177-184.	1.8	23
69	Neutron Crystallography, Molecular Dynamics, and Quantum Mechanics Studies of the Nature of Hydrogen Bonding in Cellulose I_{Î²}. Biomacromolecules, 2008, 9, 3133-3140.	2.6	215
70	Disaccharide conformational maps: adiabaticity in analogues with variable ring shapes. Molecular Simulation, 2008, 34, 373-389.	0.9	28
71	van der Waals versus Hydrogen-Bonding Forces in a Crystalline Analog of Cellotetraose: Cyclohexyl 4â€²-<i>O</i>-Cyclohexyl Î²-<scp>d</scp>-Cellobioside Cyclohexane Solvate. Journal of the American Chemical Society, 2008, 130, 16678-16690.	6.6	53
72	Paradigm for Improving the Catalytic Ability of Industrial Enzymes: Linkage Distortions of Carbohydrates in Complexes with Crystalline Proteins. ACS Symposium Series, 2007, , 207-219.	0.5	0

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73	Octa-O-propanoyl-Î²-maltose: crystal structure, acyl stacking, related structures, and conformational analysis. Carbohydrate Research, 2007, 342, 1210-1222.	1.1	13
74	Linkage and pyranosyl ring twisting in cyclodextrins. Carbohydrate Research, 2007, 342, 1223-1237.	1.1	37
75	Cellulose Shapes. , 2007, , 257-284.		5
76	Quantum mechanics studies of cellobiose conformations. Canadian Journal of Chemistry, 2006, 84, 603-612.	0.6	59
77	A Dehydration Method for Immature or Wet Cotton Fibers for Light and Electron Microscopy. Textile Reseach Journal, 2006, 76, 514-518.	1.1	8
78	Fluorinated cellobiose and maltose as stand-ins for energy surface calculations. Tetrahedron: Asymmetry, 2005, 16, 577-586.	1.8	21
79	Determining the crystal structure of cellulose IIII by modeling. Carbohydrate Research, 2005, 340, 827-833.	1.1	24
80	The external-anomeric torsional effect. Carbohydrate Research, 2005, 340, 853-862.	1.1	29
81	Cotton Fiber Properties and Moisture: Water of Imbibition. Textile Reseach Journal, 2005, 75, 177-180.	1.1	10
82	What crystals of small analogs are trying to tell us about cellulose structure. Cellulose, 2004, 11, 5-22.	2.4	60
83	Comments on the paper â€˜The behavior of cellulose molecules in aqueous environmentsâ€™ by Tanaka and Fukui. Cellulose, 2004, 11, 39-42.	2.4	2
84	Advanced conformational energy surfaces for cellobiose**. Cellulose, 2004, 11, 449-462.	2.4	41
85	Incremented alkyl derivatives enhance collision induced glycosidic bond cleavage in mass spectrometry of disaccharides. Journal of the American Society for Mass Spectrometry, 2003, 14, 63-78.	1.2	31
86	MM3 MODELING OF ALDOPENTOSE PYRANOSE RINGS. Journal of Carbohydrate Chemistry, 2002, 21, 11-25.	0.4	14
87	MM3(96) CONFORMATIONAL ANALYSIS OF d-GLUCARAMIDE AND X-RAY CRYSTAL STRUCTURES OF THREE d-GLUCARIC ACID DERIVATIVESâ€"MODELS FOR SYNTHETIC POLY(ALKYLENE d-GLUCARAMIDES). Journal of Carbohydrate Chemistry, 2002, 21, 27-51.	0.4	23
88	Conformational Analyses of Native and Permethylated Disaccharides. Journal of Physical Chemistry A, 2002, 106, 4115-4124.	1.1	63
89	Quantum Mechanics Studies of the Intrinsic Conformation of Trehalose. Journal of Physical Chemistry A, 2002, 106, 4988-4997.	1.1	39
90	The crystal structure of the Î±-cellobioseÂ·2 NaIÂ·2 H2O complex in the context of related structures and conformational analysis. Carbohydrate Research, 2002, 337, 851-861.	1.1	55

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91	Crystal structure of penta-O-acetyl-Î²-d-galactopyranose with modeling of the conformation of the acetate groups. Carbohydrate Research, 2002, 337, 2301-2310.	1.1	13
92	QM/MM distortion energies in di- and oligosaccharides complexed with proteins. International Journal of Quantum Chemistry, 2001, 84, 416-425.	1.0	23
93	HF/6-31G* energy surfaces for disaccharide analogs. Journal of Computational Chemistry, 2001, 22, 65-78.	1.5	78
94	When anomeric effects collide. Journal of Computational Chemistry, 2001, 22, 1194-1204.	1.5	20
95	Modeling of deoxy- and dideoxyaldohexopyranosyl ring puckering with MM3(92). Carbohydrate Research, 2001, 335, 261-273.	1.1	16
96	When anomeric effects collide. , 2001, 22, 1194.		1
97	A QM/MM analysis of the conformations of crystalline sucrose moieties. Carbohydrate Research, 2000, 326, 305-322.	1.1	48
98	Constructing and evaluating energy surfaces of crystalline disaccharides. Journal of Molecular Graphics and Modelling, 2000, 18, 95-107.	1.3	63
99	A comparison and chemometric analysis of several molecular mechanics force fields and parameter sets applied to carbohydrates. Carbohydrate Research, 1998, 314, 141-155.	1.1	150
100	Factors controlling relative stability of anomers and hydroxymethyl conformers of glucopyranose. , 1998, 19, 1111-1129.		122
101	Exo-anomeric effects on energies and geometries of different conformations of glucose and related systems in the gas phase and aqueous solution. Carbohydrate Research, 1997, 298, 1-14.	1.1	94
102	Molecular modeling methodology of Î²-cyclodextrin inclusion complexes. Computational and Theoretical Chemistry, 1996, 366, 113-117.	1.5	42
103	Relative stability of alternative chair forms and hydroxymethyl conformations of Î²-d-glucopyranose. Carbohydrate Research, 1995, 276, 219-251.	1.1	184
104	Molecular Mechanics Modeling of Î±-(1â†’2)-, Î±-(1â†’3)-, and Î±-(1â†’6)-Linked Mannosyl Disaccharides with MM3(92)¹. Journal of Carbohydrate Chemistry, 1995, 14, 589-600.	0.4	36
105	Studies of crystalline native celluloses using potential energy calculations. Cellulose, 1994, 1, 161-168.	2.4	24
106	Preliminary potential energy calculations of cellulose iÎ± crystal structure. Macromolecular Theory and Simulations, 1994, 3, 185-191.	0.6	32
107	Modeling of aldopyranosyl ring puckering with MM3 (92). Carbohydrate Research, 1994, 264, 1-19.	1.1	148
108	An NMR, X-ray crystal structure, and molecular mechanics study of di-(3-deoxy-d-glycero-pentulose) 1,2â€²:2,1â€² dianhydride. Carbohydrate Research, 1994, 260, 1-15.	1.1	15

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109	Analysis of the ring-form tautomers of psicose with MM3 (92). Journal of Computational Chemistry, 1994, 15, 561-570.	1.5	32
110	Relaxed-residue conformational mapping of the three linkage bonds of isomaltose and gentiobiose with MM3(92). Biopolymers, 1994, 34, 625-638.	1.2	60
111	Ab Initio-MIA and Molecular Mechanics Studies of the Distorted Sucrose Linkage of Raffinose. Journal of the American Chemical Society, 1994, 116, 9590-9595.	6.6	20
112	Overlapping anomeric effects in a sucrose analogue. Carbohydrate Research, 1993, 239, 51-60.	1.1	26
113	Computer modeling of the tetrasaccharide nystose. Carbohydrate Research, 1993, 247, 51-62.	1.1	26
114	Exploration of disaccharide conformations by molecular mechanics. Computational and Theoretical Chemistry, 1993, 286, 183-201.	1.5	104
115	Molecular Modeling of Two Disaccharides Containing Fructopyranose Linked to Glucopyranose. Journal of Carbohydrate Chemistry, 1993, 12, 449-457.	0.4	11
116	Miniature crystal models of cellulose polymorphs and other carbohydrates. International Journal of Biological Macromolecules, 1993, 15, 30-36.	3.6	83
117	Conformational analysis of the anomeric forms of sophorose, laminarabiose, and cellobiose using MM3. Carbohydrate Research, 1992, 233, 15-34.	1.1	121
118	Conformational analysis of the anomeric forms of kojibiose, nigerose, and maltose using MM3. Carbohydrate Research, 1992, 230, 223-244.	1.1	105
119	Conformational analysis of trehalose disaccharides and analogues using MM3. Journal of Computational Chemistry, 1992, 13, 102-114.	1.5	86
120	Conformational analysis of 1-kestose by molecular mechanics and by n.m.r. spectroscopy. Carbohydrate Research, 1991, 217, 29-42.	1.1	27
121	Conformational Analysis of a Disaccharide (Cellobiose) with the Molecular Mechanics Program (MM2). ACS Symposium Series, 1990, , 191-212.	0.5	31
122	Computer Modeling of Carbohydrates. ACS Symposium Series, 1990, , 1-19.	0.5	37
123	Conformational analysis of inulobiose by molecular mechanics. Carbohydrate Research, 1990, 207, 221-235.	1.1	25
124	Modeling of Glucopyranose. ACS Symposium Series, 1990, , 120-140.	0.5	42
125	Comparisons of rigid and relaxed conformational maps for cellobiose and maltose. Carbohydrate Research, 1989, 188, 206-211.	1.1	56
126	Chemical and Physical Properties of Fructans. Journal of Plant Physiology, 1989, 134, 125-136.	1.6	45

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127	Rigid- and relaxed-residue conformational analyses of cellobiose using the computer program mm2. Biopolymers, 1988, 27, 1519-1525.	1.2	54
128	Accessible conformations of the Î²-d-(2â†’1)- and -(2â†’6)-linked d-fructans inulin and levan. Carbohydrate Research, 1988, 176, 17-29.	1.1	31
129	Linkage position in oligosaccharides by fast atom bombardment ionization, collision-activated dissociation, tandem mass spectrometry and molecular modeling. L-Fucosylp-(.alpha.1.fwdarw.X)-D-N-acetyl-D-glucosaminylp-(.beta.1.fwdarw.3)-D-galactosylp-(.beta.1-O-methyl) where X = 3, 4, or 6. Journal of the American Chemical Society, 1988, 110, 6931-6939.	6.6	86
130	The molecular structure and conformation of cellulose II (Fortisan) using accurate X-ray diffraction intensities. Journal of Macromolecular Science - Physics, 1985, 24, 229-245.	0.4	1
131	Digital comparison of x-ray diffraction data from cotton textiles. Journal of Applied Polymer Science, 1980, 25, 1469-1478.	1.3	4
132	Conformational differences and steric energies for compounds containing Î±-d-glucopyranose chairs having a range of 0â€“4-0â€“1 distances. Carbohydrate Research, 1980, 87, 1-10.	1.1	13
133	Availability and disposition of hydroxyl groups on surfaces of crystalline cellulose II. Journal of Polymer Science: Polymer Chemistry Edition, 1974, 12, 445-454.	0.8	8
134	The effects of changes in ring geometry on computer models of amylose. Carbohydrate Research, 1973, 27, 391-406.	1.1	87
135	Comments on the proposed helical structure of cellulose I. Journal of Applied Polymer Science, 1972, 16, 1579-1579.	1.3	0
136	An Assessment of Surface Properties and Moisture Uptake of Nonwoven Fabrics from Ginning By-products. , 0, , .		4