Kevin J Edgar

List of Publications by Year
in descending order

109 papers	7,389 citations	76326 40 h-index	54911 84 g-index
110 all docs	110 docs citations	110 times ranked	8028 citing authors

#	Article	IF	Citations
1	Regioselective synthesis of polysaccharideâ€"amino acid ester conjugates. Carbohydrate Polymers, 2022, 277, 118886.	10.2	4
2	40th anniversary issue of carbohydrate polymers. Carbohydrate Polymers, 2022, 289, 119427.	10.2	0
3	Designing synergistic crystallization inhibitors: Bile salt derivatives of cellulose with enhanced hydrophilicity. Carbohydrate Polymers, 2022, 292, 119680.	10.2	6
4	Interaction of Polymers with Enzalutamide Nanodropletsâ€"Impact on Droplet Properties and Induction Times. Molecular Pharmaceutics, 2021, 18, 836-849.	4.6	9
5	Photo-curable, double-crosslinked, in situ-forming hydrogels based on oxidized hydroxypropyl cellulose. Cellulose, 2021, 28, 3903-3915.	4.9	15
6	A Versatile Method for Preparing Polysaccharide Conjugates via Thiol-Michael Addition. Polymers, 2021, 13, 1905.	4.5	9
7	Chemical synthesis of polysaccharideâ€"protein and polysaccharideâ€"peptide conjugates: A review. Carbohydrate Polymers, 2021, 274, 118662.	10.2	31
8	In situ forming hydrogels based on oxidized hydroxypropyl cellulose and Jeffamines. Cellulose, 2021, 28, 11367-11380.	4.9	4
9	Polysaccharide-containing block copolymers: synthesis and applications. Materials Chemistry Frontiers, 2020, 4, 99-112.	5.9	30
10	Synthesis of polysaccharide-based block copolymers via olefin cross-metathesis. Carbohydrate Polymers, 2020, 229, 115530.	10.2	8
11	Selective Oxidation of 2-Hydroxypropyl Ethers of Cellulose and Dextran: Simple and Efficient Introduction of Versatile Ketone Groups to Polysaccharides. Biomacromolecules, 2020, 21, 4835-4849.	5.4	20
12	Antibacterial modification of Lyocell fiber: A review. Carbohydrate Polymers, 2020, 250, 116932.	10.2	38
13	Amorphous solid dispersions of enzalutamide and novel polysaccharide derivatives: investigation of relationships between polymer structure and performance. Scientific Reports, 2020, 10, 18535.	3.3	34
14	Reaction of 2,5-dihydroxy-[1,4]-benzoquinone with nucleophiles â€" ipso-substitution vs. addition/elimination. Chemical Communications, 2020, 56, 12845-12848.	4.1	0
15	All-Polysaccharide, Self-Healing Injectable Hydrogels Based on Chitosan and Oxidized Hydroxypropyl Polysaccharides. Biomacromolecules, 2020, 21, 4261-4272.	5.4	43
16	Green Hydrogels Based on Starch: Preparation Methods for Biomedical Applications. ACS Symposium Series, 2020, , 173-196.	0.5	6
17	Regioselective Bromination of the Dextran Nonreducing End Creates a Pathway to Dextran-Based Block Copolymers. Biomacromolecules, 2020, 21, 1729-1738.	5.4	5
18	Challenges and strategies in drug delivery systems for treatment of pulmonary infections. European Journal of Pharmaceutics and Biopharmaceutics, 2019, 144, 110-124.	4.3	95

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19	Conjugation of bile esters to cellulose by olefin cross-metathesis: A strategy for accessing complex polysaccharide structures. Carbohydrate Polymers, 2019, 221, 37-47.	10.2	9
20	Toughening Cellulose: Compatibilizing Polybutadiene and Cellulose Triacetate Blends. ACS Macro Letters, 2019, 8, 447-453.	4.8	14
21	Efficient Synthesis of Glycosaminoglycan Analogs. Biomacromolecules, 2019, 20, 608-617.	5.4	18
22	Azide reduction by DTT or thioacetic acid provides access to amino and amido polysaccharides. Cellulose, 2019, 26, 445-462.	4.9	9
23	Influence of Polymer and Drug Loading on the Release Profile and Membrane Transport of Telaprevir. Molecular Pharmaceutics, 2018, 15, 1700-1713.	4.6	52
24	Design of cellulose ether-based macromolecular prodrugs of ciprofloxacin for extended release and enhanced bioavailability. International Journal of Biological Macromolecules, 2018, 113, 719-728.	7.5	6
25	Regioselective chlorination of cellulose esters by methanesulfonyl chloride. Carbohydrate Polymers, 2018, 193, 108-118.	10.2	22
26	Rifampin Stability and Solution Concentration Enhancement Through Amorphous Solid Dispersion in Cellulose Ï‰-Carboxyalkanoate Matrices. Journal of Pharmaceutical Sciences, 2018, 107, 127-138.	3.3	25
27	Cellulose-based amorphous solid dispersions enhance rifapentine delivery characteristics in vitro. Carbohydrate Polymers, 2018, 182, 149-158.	10.2	16
28	Crystallization Inhibition Properties of Cellulose Esters and Ethers for a Group of Chemically Diverse Drugs: Experimental and Computational Insight. Biomacromolecules, 2018, 19, 4593-4606.	5.4	20
29	Selective synthesis of curdlan Ï‰-carboxyamides by Staudinger ylide nucleophilic ring-opening. Carbohydrate Polymers, 2018, 190, 222-231.	10.2	7
30	Pharmaceutical Applications of Cellulose Ethers and Cellulose Ether Esters. Biomacromolecules, 2018, 19, 2351-2376.	5.4	192
31	Water-soluble co-polyelectrolytes by selective modification of cellulose esters. Carbohydrate Polymers, 2017, 162, 1-9.	10.2	22
32	Tandem modification of amphiphilic cellulose ethers for amorphous solid dispersion via olefin cross-metathesis and thiol-Michael addition. Polymer Chemistry, 2017, 8, 3129-3139.	3.9	25
33	Olefin Cross-Metathesis in Polymer and Polysaccharide Chemistry: A Review. Biomacromolecules, 2017, 18, 1661-1676.	5.4	44
34	Efficient synthesis of secondary amines by reductive amination of curdlan Staudinger ylides. Carbohydrate Polymers, 2017, 171, 1-8.	10.2	13
35	Synthesis and characterization of alkyl cellulose Ï‰-carboxyesters for amorphous solid dispersion. Cellulose, 2017, 24, 609-625.	4.9	9
36	Designing novel bioconjugates of hydroxyethyl cellulose and salicylates for potential pharmaceutical and pharmacological applications. International Journal of Biological Macromolecules, 2017, 103, 441-450.	7.5	14

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37	Multidrug, Anti-HIV Amorphous Solid Dispersions: Nature and Mechanisms of Impacts of Drugs on Each Otherâ€™s Solution Concentrations. Molecular Pharmaceutics, 2017, 14, 3617-3627.	4.6	25
38	Design, characterization and pharmaceutical/pharmacological applications of ibuprofen conjugates based on hydroxyethylcellulose. RSC Advances, 2017, 7, 50672-50679.	3.6	9
39	Novel cellulose-based amorphous solid dispersions enhance quercetin solution concentrations in vitro. Carbohydrate Polymers, 2017, 157, 86-93.	10.2	37
40	Cellulosic polyelectrolytes: synthetic pathways to regioselectively substituted ammonium and phosphonium derivatives. Cellulose, 2016, 23, 1687-1704.	4.9	10
41	Multifunctional cellulose esters by olefin cross-metathesis and thiol-Michael addition. Polymer Chemistry, 2016, 7, 3848-3856.	3.9	26
42	Mechanistic Design of Chemically Diverse Polymers with Applications in Oral Drug Delivery. Biomacromolecules, 2016, 17, 3659-3671.	5.4	44
43	Amphiphilic hydroxyalkyl cellulose derivatives for amorphous solid dispersion prepared by olefin cross-metathesis. Polymer Chemistry, 2016, 7, 4953-4963.	3.9	38
44	Amphiphilic Cellulose Ethers Designed for Amorphous Solid Dispersion via Olefin Cross-Metathesis. Biomacromolecules, 2016, 17, 454-465.	5.4	30
45	An Efficient, Regioselective Pathway to Cationic and Zwitterionic <i>N</i>-Heterocyclic Cellulose Ionomers. Biomacromolecules, 2016, 17, 503-513.	5.4	22
46	Functionalized Celluloses with Regular Substitution Pattern by Glycosynthase-Catalyzed Polymerization. Biomacromolecules, 2016, 17, 1272-1279.	5.4	21
47	Regioselective synthesis of cationic 6-deoxy-6-(N,N,N-trialkylammonio)curdlan derivatives. Carbohydrate Polymers, 2016, 136, 474-484.	10.2	23
48	Extended release and enhanced bioavailability of moxifloxacin conjugated with hydrophilic cellulose ethers. Carbohydrate Polymers, 2016, 136, 1297-1306.	10.2	22
49	â€œClickâ€•reactions in polysaccharide modification. Progress in Polymer Science, 2016, 53, 52-85.	24.7	161
50	Imparting functional variety to cellulose ethers <i>via</i> olefin cross-metathesis. Polymer Chemistry, 2015, 6, 3816-3827.	3.9	33
51	Water-soluble aminocurdlan derivatives by chemoselective azide reduction using NaBH4. Carbohydrate Polymers, 2015, 122, 84-92.	10.2	26
52	Cellulose levulinate: a protecting group for cellulose that can be selectively removed in the presence of other ester groups. Cellulose, 2015, 22, 301-311.	4.9	17
53	Synthesis of amide-functionalized cellulose esters by olefin cross-metathesis. Carbohydrate Polymers, 2015, 132, 565-573.	10.2	24
54	Cellulose ether derivatives: a new platform for prodrug formation of fluoroquinolone antibiotics. Cellulose, 2015, 22, 2011-2022.	4.9	30

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55	Phase Behavior of Resveratrol Solid Dispersions Upon Addition to Aqueous media. Pharmaceutical Research, 2015, 32, 3324-3337.	3.5	24
56	The role of polymers in oral bioavailability enhancement; a review. Polymer, 2015, 77, 399-415.	3.8	67
57	Hydroborationâ€"oxidation: A chemoselective route to cellulose Ï‰-hydroxyalkanoate esters. Carbohydrate Polymers, 2015, 133, 262-269.	10.2	8
58	Staudinger Reactions for Selective Functionalization of Polysaccharides: A Review. Biomacromolecules, 2015, 16, 2556-2571.	5.4	58
59	Olefin cross-metathesis, a mild, modular approach to functionalized cellulose esters. Polymer Chemistry, 2014, 5, 7021-7033.	3.9	39
60	Synthesis of amphiphilic 6-carboxypullulan ethers. Carbohydrate Polymers, 2014, 100, 65-73.	10.2	20
61	Olefin Cross-Metathesis as a Source of Polysaccharide Derivatives: Cellulose Ï‰-Carboxyalkanoates. Biomacromolecules, 2014, 15, 177-187.	5.4	38
62	Properties, Chemistry, and Applications of the Bioactive Polysaccharide Curdlan. Biomacromolecules, 2014, 15, 1079-1096.	5.4	221
63	Glycan ester deacylation by TBAOH or TBAF: Regioselectivity vs. polysaccharide structure. Carbohydrate Polymers, 2014, 113, 159-165.	10.2	5
64	Synthesis and characterization of neutral and anionic cellulosic amphiphiles. Carbohydrate Polymers, 2014, 113, 480-489.	10.2	6
65	Regioselective synthesis of 6-amino- and 6-amido-6-deoxypullulans. Cellulose, 2014, 21, 2379-2396.	4.9	17
66	Editorial. Carbohydrate Polymers, 2014, 100, 1.	10.2	0
67	Synthesis of curdlan derivatives regioselectively modified at C-6: O-(N)-Acylated 6-amino-6-deoxycurdlan. Carbohydrate Polymers, 2014, 105, 161-168.	10.2	43
68	Pairwise Polymer Blends for Oral Drug Delivery. Journal of Pharmaceutical Sciences, 2014, 103, 2871-2883.	3.3	54
69	Curcumin amorphous solid dispersions: the influence of intra and intermolecular bonding on physical stability. Pharmaceutical Development and Technology, 2014, 19, 976-986.	2.4	82
70	Remarkably regioselective deacylation of cellulose esters using tetraalkylammonium salts of the strongly basic hydroxide ion. Carbohydrate Polymers, 2014, 111, 25-32.	10.2	14
71	Synthesis and structureâ€"property evaluation of cellulose Ï‰-carboxyesters for amorphous solid dispersions. Carbohydrate Polymers, 2014, 100, 116-125.	10.2	50
72	Mid-infrared spectroscopy as a polymer selection tool for formulating amorphous solid dispersions. Journal of Pharmacy and Pharmacology, 2014, 66, 244-255.	2.4	38

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73	Maintaining Supersaturation in Aqueous Drug Solutions: Impact of Different Polymers on Induction Times. Crystal Growth and Design, 2013, 13, 740-751.	3.0	203
74	Both solubility and chemical stability of curcumin are enhanced by solid dispersion in cellulose derivative matrices. Carbohydrate Polymers, 2013, 98, 1108-1116.	10.2	147
75	Solid dispersion of quercetin in cellulose derivative matrices influences both solubility and stability. Carbohydrate Polymers, 2013, 92, 2033-2040.	10.2	104
76	Enhancement of naringenin solution concentration by solid dispersion in cellulose derivative matrices. Cellulose, 2013, 20, 2137-2149.	4.9	24
77	Stability and solution concentration enhancement of resveratrol by solid dispersion in cellulose derivative matrices. Cellulose, 2013, 20, 1249-1260.	4.9	33
78	Alginate esters via chemoselective carboxyl group modification. Carbohydrate Polymers, 2013, 98, 1288-1296.	10.2	45
79	Crystallization of Amorphous Solid Dispersions of Resveratrol during Preparation and Storageâ€"Impact of Different Polymers. Journal of Pharmaceutical Sciences, 2013, 102, 171-184.	3.3	159
80	Interplay of Degradation, Dissolution and Stabilization of Clarithromycin and Its Amorphous Solid Dispersions. Molecular Pharmaceutics, 2013, 10, 4640-4653.	4.6	43
81	Stability and solubility enhancement of ellagic acid in cellulose ester solid dispersions. Carbohydrate Polymers, 2013, 92, 1443-1450.	10.2	65
82	TBAF-catalyzed deacylation of cellulose esters: Reaction scope and influence of reaction parameters. Carbohydrate Polymers, 2013, 98, 692-698.	10.2	16
83	Impact of Polymers on Crystal Growth Rate of Structurally Diverse Compounds from Aqueous Solution. Molecular Pharmaceutics, 2013, 10, 2381-2393.	4.6	90
84	Influence of Additives on the Properties of Nanodroplets Formed in Highly Supersaturated Aqueous Solutions of Ritonavir. Molecular Pharmaceutics, 2013, 10, 3392-3403.	4.6	76
85	Probing the Mechanism of TBAF-Catalyzed Deacylation of Cellulose Esters. Biomacromolecules, 2013, 14, 1388-1394.	5.4	30
86	Inhibition of solution crystal growth of ritonavir by cellulose polymers â€" factors influencing polymer effectiveness. CrystEngComm, 2012, 14, 6503.	2.6	89
87	TBAF and Cellulose Esters: Unexpected Deacylation with Unexpected Regioselectivity. Biomacromolecules, 2012, 13, 299-303.	5.4	28
88	Effect of Binary Additive Combinations on Solution Crystal Growth of the Poorly Water-Soluble Drug, Ritonavir. Crystal Growth and Design, 2012, 12, 6050-6060.	3.0	65
89	Understanding Polymer Properties Important for Crystal Growth Inhibitionâ€"Impact of Chemically Diverse Polymers on Solution Crystal Growth of Ritonavir. Crystal Growth and Design, 2012, 12, 3133-3143.	3.0	186
90	Regioselective Synthesis of Cellulose Ester Homopolymers. Biomacromolecules, 2012, 13, 2195-2201.	5.4	20

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91	Staudinger Reduction Chemistry of Cellulose: Synthesis of Selectively <i>O</i>-Acylated 6-Amino-6-deoxy-cellulose. Biomacromolecules, 2012, 13, 992-1001.	5.4	47
92	Direct synthesis of cellulose adipate derivatives using adipic anhydride. Cellulose, 2012, 19, 1279-1293.	4.9	27
93	Alginate derivatization: A review of chemistry, properties and applications. Biomaterials, 2012, 33, 3279-3305.	11.4	1,261
94	Chemical Modification of Alginates in Organic Solvent Systems. Biomacromolecules, 2011, 12, 4095-4103.	5.4	101
95	Regioselective Esterification and Etherification of Cellulose: A Review. Biomacromolecules, 2011, 12, 1956-1972.	5.4	281
96	Synthesis of Cellulose Adipate Derivatives. Biomacromolecules, 2011, 12, 1106-1115.	5.4	44
97	Studies on regioselective acylation of cellulose with bulky acid chlorides. Cellulose, 2011, 18, 405-419.	4.9	46
98	Synthesis of regioselectively brominated cellulose esters and 6-cyano-6-deoxycellulose esters. Cellulose, 2011, 18, 1305-1314.	4.9	31
99	Direct Synthesis of Partially Substituted Cellulose Esters. ACS Symposium Series, 2010, , 213-229.	0.5	2
100	Enhanced dissolution of poorly soluble drugs from solid dispersions in carboxymethylcellulose acetate butyrate matrices. ACS Symposium Series, 2010, , 93-113.	0.5	6
101	Vitamin E TPGS P-Glycoprotein Inhibition Mechanism: Influence on Conformational Flexibility, Intracellular ATP Levels, and Role of Time and Site of Access. Molecular Pharmaceutics, 2010, 7, 642-651.	4.6	186
102	Inhibiting efflux with novel non-ionic surfactants: Rational design based on vitamin E TPGS. International Journal of Pharmaceutics, 2009, 370, 93-102.	5.2	56
103	Mechanism of Inhibition of P-Glycoprotein Mediated Efflux by Vitamin E TPGS:â€‰ Influence on ATPase Activity and Membrane Fluidity. Molecular Pharmaceutics, 2007, 4, 465-474.	4.6	244
104	Zero-order release formulations using a novel cellulose ester. Cellulose, 2007, 14, 73-83.	4.9	41
105	Cellulose esters in drug delivery. Cellulose, 2006, 14, 49-64.	4.9	152
106	Influence of vitamin E TPGS poly(ethylene glycol) chain length on apical efflux transporters in Caco-2 cell monolayers. Journal of Controlled Release, 2006, 111, 35-40.	9.9	165
107	Advances in cellulose ester performance and application. Progress in Polymer Science, 2001, 26, 1605-1688.	24.7	904
108	Preparation of cellulose [1-carbon-13]acetates and determination of monomer composition by NMR spectroscopy. Macromolecules, 1991, 24, 3050-3059.	4.8	66

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109	Preparation and characterization of cellulose monoacetates: the relationship between structure and water solubility. Macromolecules, 1991, 24, 3060-3064.	4.8	50