BjÃ¸rn E Christensen

List of Publications by Year
in descending order

87 papers	4,343 citations	101384 36 h-index	110170 64 g-index
87 all docs	87 docs citations	87 times ranked	4884 citing authors

#	Article	IF	Citations
1	Improved chitosan-mediated gene delivery based on easily dissociated chitosan polyplexes of highly defined chitosan oligomers. Gene Therapy, 2004, 11, 1441-1452.	2.3	363
2	Periodate oxidation of polysaccharides for modification of chemical and physical properties. Carbohydrate Research, 2010, 345, 1264-1271.	1.1	247
3	The role of extracellular polysaccharides in biofilms. Journal of Biotechnology, 1989, 10, 181-202.	1.9	184
4	A Study of the Chain Stiffness and Extension of Alginates, in Vitro Epimerized Alginates, and Periodate-Oxidized Alginates Using Size-Exclusion Chromatography Combined with Light Scattering and Viscosity Detectors. Biomacromolecules, 2006, 7, 2136-2146.	2.6	176
5	Influence of Chitosan Structure on the Formation and Stability of DNAâ˜Chitosan Polyelectrolyte Complexes. Biomacromolecules, 2005, 6, 3357-3366.	2.6	161
6	Preparation and characterisation of oligosaccharides produced by nitrous acid depolymerisation of chitosans. Carbohydrate Research, 2001, 333, 137-144.	1.1	158
7	Molecular weight determination of lignosulfonates by size-exclusion chromatography and multi-angle laser light scattering. Journal of Chromatography A, 2002, 942, 191-199.	1.8	135
8	Alginates as biomaterials in tissue engineering. Carbohydrate Chemistry, 2011, , 227-258.	0.3	132
9	Antibacterial activity of chemically defined chitosans: Influence of molecular weight, degree of acetylation and test organism. International Journal of Food Microbiology, 2011, 148, 48-54.	2.1	125
10	Periodate oxidation of chitosans with different chemical compositions. Carbohydrate Research, 2005, 340, 679-684.	1.1	121
11	Polyelectrolyte Complexes:Â Interactions between Lignosulfonate and Chitosan. Biomacromolecules, 2003, 4, 232-239.	2.6	112
12	Preparative and analytical size-exclusion chromatography of chitosans. Carbohydrate Polymers, 1996, 31, 253-261.	5.1	100
13	Targeted gene delivery with trisaccharide-substituted chitosan oligomers in vitro and after lung administration in vivo. Journal of Controlled Release, 2006, 115, 103-112.	4.8	87
14	Preparation and characterisation of chitosans with oligosaccharide branches. Carbohydrate Research, 2002, 337, 2455-2462.	1.1	80
15	Role of the Pseudomonas fluorescens Alginate Lyase (AlgL) in Clearing the Periplasm of Alginates Not Exported to the Extracellular Environment. Journal of Bacteriology, 2005, 187, 8375-8384.	1.0	80
16	Comparison of Molecular Weight and Molecular Weight Distributions of Softwood and Hardwood Lignosulfonates. Journal of Wood Chemistry and Technology, 2003, 23, 197-215.	0.9	77
17	Tailoring of Chitosans for Gene Delivery: Novel Self-Branched Glycosylated Chitosan Oligomers with Improved Functional Properties. Biomacromolecules, 2008, 9, 3268-3276.	2.6	75
18	Swelling and partial solubilization of alginic acid gel beads in acidic buffer. Carbohydrate Polymers, 1996, 29, 209-215.	5.1	67

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19	Periodate oxidized alginates: Depolymerization kinetics. Carbohydrate Polymers, 2011, 86, 1595-1601.	5.1	67
20	Chain stiffness and extension of chitosans and periodate oxidised chitosans studied by size-exclusion chromatography combined with light scattering and viscosity detectors. Carbohydrate Polymers, 2008, 74, 559-565.	5.1	62
21	Sphagnan - a pectin-like polymer isolated fromSphagnummoss can inhibit the growth of some typical food spoilage and food poisoning bacteria by lowering the pH. Journal of Applied Microbiology, 2009, 106, 967-976.	1.4	61
22	Depolymerization of double-stranded xanthan by acid hydrolysis: characterization of partially degraded double strands and single-stranded oligomers released from the ordered structures. Macromolecules, 1993, 26, 6111-6120.	2.2	60
23	Chemical and biological characterization of pectin-like polysaccharides from the bark of the Malian medicinal tree Cola cordifolia. Carbohydrate Polymers, 2012, 89, 259-268.	5.1	58
24	Conformation dependent depolymerisation kinetics of polysaccharides studied by viscosity measurements. Carbohydrate Polymers, 1994, 24, 265-275.	5.1	54
25	Static Light Scattering Studies on Xanthan in Aqueous Solutions. Macromolecules, 1996, 29, 3491-3498.	2.2	52
26	Ionically Gelled Alginate Foams: Physical Properties Controlled by Operational and Macromolecular Parameters. Biomacromolecules, 2012, 13, 3703-3710.	2.6	52
27	Molecular Weight, Structure, and Shape of Oat (1â†'3),(1â†'4)-Î²-d-Glucan Fractions Obtained by Enzymatic Degradation with Lichenase. Biomacromolecules, 2000, 1, 584-591.	2.6	47
28	Macromolecular characterisation of three barley Î²-glucan standards by size-exclusion chromatography combined with light scattering and viscometry: an inter-laboratory study. Carbohydrate Polymers, 2001, 45, 11-22.	5.1	47
29	Acid Hydrolysis of Îº- and Î¹-Carrageenan in the Disordered and Ordered Conformations:â€‰ Characterization of Partially Hydrolyzed Samples and Single-Stranded Oligomers Released from the Ordered Structures. Macromolecules, 1998, 31, 1842-1851.	2.2	46
30	Molecular weight, structure and shape of oat (1â†'3),(1â†'4)-Î²-d-glucan fractions obtained by enzymatic degradation with (1â†'4)-Î²-d-glucan 4-glucanohydrolase from Trichoderma reesei. Carbohydrate Polymers, 2001, 46, 275-285.	5.1	46
31	Determination of average degree of polymerisation and distribution of oligosaccharides in a partially acid-hydrolysed homopolysaccharide: A comparison of four experimental methods applied to mannuronan. Journal of Chromatography A, 2004, 1026, 271-281.	1.8	45
32	Analysis of the conformational properties of ?- and ?-carrageenan by size-exclusion chromatography combined with low-angle laser light scattering. Biopolymers, 1999, 49, 71-80.	1.2	44
33	Comparison of chitosans with different molecular weights as possible wood preservatives. Journal of Wood Science, 2005, 51, 387-394.	0.9	42
34	The influence of the conformational state of Îº- and Î¹-carrageenan on the rate of acid hydrolysis. Carbohydrate Research, 1996, 288, 175-187.	1.1	42
35	Hydrolysis of xanthan in dilute acid: Effects on chemical composition, conformation, and intrinsic viscosity. Carbohydrate Research, 1991, 214, 55-69.	1.1	40
36	A re-examination and partial characterisation of polysaccharides released by mild acid hydrolysis from the chlorite-treated leaves of Sphagnum papillosum. Carbohydrate Polymers, 2007, 67, 104-115.	5.1	37

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37	Novel alginates prepared by independent control of chain stiffness and distribution of G-residues: Structure and gelling properties. Carbohydrate Polymers, 2009, 77, 725-735.	5.1	36
38	A re-investigation of the Markâ€“Houwinkâ€“Sakurada parameters for cellulose in Cuen: A study based on size-exclusion chromatography combined with multi-angle light scattering and viscometry. Journal of Chromatography A, 2013, 1281, 32-37.	1.8	36
39	Flexibility and length of human bronchial mucin studied using low-shear viscometry, birefringence relaxation analysis, and electron microscopy. Biopolymers, 1985, 24, 1683-1704.	1.2	33
40	Application of high-performance anion-exchange chromatography with pulsed amperometric detection and statistical analysis to study oligosaccharide distributions â€“ a complementary method to investigate the structure and some properties of alginates. Journal of Chromatography A, 2005, 1093, 59-68.	1.8	33
41	The Azotobacter vinelandii AlgE mannuronan C-5-epimerase family is essential for the in vivo control of alginate monomer composition and for functional cyst formation. Environmental Microbiology, 2008, 10, 1760-1770.	1.8	33
42	Probing macromolecular architectures of nanosized cyclic structures of (1â†’3)-Î²-d-glucans by AFM and SEC-MALLS. Carbohydrate Research, 2005, 340, 971-979.	1.1	31
43	Identification and Characterization of an Azotobacter vinelandii Type I Secretion System Responsible for Export of the AlgE-Type Mannuronan C-5-Epimerases. Journal of Bacteriology, 2006, 188, 5551-5560.	1.0	31
44	Inhibition of Bacillus cereus spore outgrowth and multiplication by chitosan. International Journal of Food Microbiology, 2011, 149, 218-225.	2.1	30
45	Ionically gelled alginate foams: Physical properties controlled by type, amount and source of gelling ions. Carbohydrate Polymers, 2014, 99, 249-256.	5.1	30
46	Polysaccharide research in Trondheim. Carbohydrate Polymers, 1990, 13, 239-255.	5.1	28
47	Free-radical degradation of triple-stranded scleroglucan by hydrogen peroxide and ferrous ions. Carbohydrate Polymers, 1998, 37, 41-48.	5.1	28
48	Temperature-Induced conformational transition in xanthans with partially hydrolyzed side chains. Biopolymers, 1993, 33, 151-161.	1.2	27
49	Degradation of double-stranded xanthan by hydrogen peroxide in the presence of ferrous ions: comparison to acid hydrolysis. Carbohydrate Research, 1996, 280, 85-99.	1.1	27
50	Development of an artificial biofilm to study the effects of a single microcolony on mass transport. Journal of Microbiological Methods, 1996, 26, 161-169.	0.7	25
51	Sclerox-chitosan co-gels: Effects of charge density on swelling of gels in ionic aqueous solution and in poor solvents, and on the rehydration of dried gels. Polymer Gels and Networks, 1998, 6, 471-492.	0.6	24
52	Preparation and characterization of branched chitosans. Carbohydrate Polymers, 2011, 83, 1558-1564.	5.1	23
53	Effect of mannuronate content and molecular weight of alginates on intestinal immunological activity through Peyer's patch cells of C3H/HeJ mice. Carbohydrate Polymers, 2011, 83, 629-634.	5.1	22
54	Degradation of multistranded polymers: effects of interstrand stabilization in xanthan and scleroglucan studied by a Monte Carlo method. Macromolecules, 1992, 25, 2209-2214.	2.2	21

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55	Release of disordered xanthan oligomers upon partial acid hydrolysis of double-stranded xanthan. Food Hydrocolloids, 1996, 10, 83-89.	5.6	21
56	Gelation of periodate oxidised scleroglucan (scleraldehyde). Carbohydrate Polymers, 2001, 46, 241-248.	5.1	21
57	The localisation of pectin in Sphagnum moss leaves and its role in preservation. Carbohydrate Polymers, 2012, 87, 1326-1332.	5.1	21
58	Carboxylation of scleroglucan for controlled crosslinking by heavy metal ions. Carbohydrate Polymers, 1995, 27, 5-11.	5.1	20
59	Degradation of cellulosic insulation in power transformers: a SECâ€“MALLS study of artificially aged transformer papers. Cellulose, 2013, 20, 2003-2011.	2.4	20
60	Resistance of biofilms containing alginateâ€producing bacteria to disintegration by an alginate degrading enzyme (Algl). Biofouling, 2001, 17, 203-210.	0.8	18
61	Macroporous, monodisperse particles and their application in aqueous size exclusion chromatography of high molecular weight polysaccharides. Carbohydrate Polymers, 1996, 29, 217-223.	5.1	17
62	Cross-Linking and Depolymerisation of Î³-Irradiated Fish Gelatin and Porcine Gelatin Studied by SEC-MALLS and SDS-PAGE: A Comparative Study. Journal of Biomaterials Science, Polymer Edition, 2010, 21, 877-892.	1.9	17
63	Study of oxidation and hydrolysis of oil impregnated paper insulation for transformers using a microcalorimeter. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 2059-2068.	1.8	17
64	Inter-laboratory evaluation of SEC-post-column calcofluor for determination of the weight-average molar mass of cereal Î²-glucan. Carbohydrate Polymers, 2015, 124, 254-264.	5.1	17
65	An evaluation of tritium and fluorescence labelling combined with multi-detector SEC for the detection of carbonyl groups in polysaccharides. Carbohydrate Polymers, 2009, 76, 196-205.	5.1	16
66	In SituGelation for Cell Immobilization and Culture in Alginate Foam Scaffolds. Tissue Engineering - Part A, 2014, 20, 131128071850006.	1.6	16
67	Relationship between energetic stress and pro-apoptotic/cytoprotective kinase mechanisms in intestinal preservation. Surgery, 2007, 141, 795-803.	1.0	15
68	Interactions of polysaccharides extracted by mild acid hydrolysis from the leaves of Sphagnum papillosum with either phenylhydrazine, o-phenylenediamine and its oxidation products or collagen. Carbohydrate Polymers, 2008, 71, 550-558.	5.1	15
69	Periodate oxidation and macromolecular compaction of hyaluronan. Pure and Applied Chemistry, 2013, 85, 1893-1900.	0.9	15
70	Effects of Physical and Chemical Treatments on the Molecular Weight and Degradation of Alginateâ€“Hydroxyapatite Composites. Macromolecular Bioscience, 2014, 14, 872-880.	2.1	15
71	Chemical characterization and complement fixation of pectins from Cola cordifolia leaves. Carbohydrate Polymers, 2014, 102, 472-480.	5.1	15
72	Higher order structures of a bioactive, water-soluble (1â†'3)-Î²-d-glucan derived from Saccharomyces cerevisiae. Carbohydrate Polymers, 2013, 92, 1026-1032.	5.1	14

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73	Calorimetric and light scattering study of interactions and macromolecular properties of native and hydrophobically modified hyaluronan. Carbohydrate Polymers, 2010, 81, 855-863.	5.1	13
74	SIZE EXCLUSION CHROMATOGRAPHY OF CELLULOSE DISSOLVED IN LiCl/DMAC USING MACROPOROUS MONODISPERSE POLY(STYRENE-CO-DIVINYLBENZENE) PARTICLES. Journal of Liquid Chromatography and Related Technologies, 2000, 23, 2277-2288.	0.5	12
75	Long-term storage of xanthan in seawater at elevated temperature: physical dimensions and chemical composition of degradation products. International Journal of Biological Macromolecules, 1989, 11, 137-144.	3.6	10
76	Metastable, Partially Depolymerized Xanthans and Rearrangements toward Perfectly Matched Duplex Structures. Macromolecules, 1996, 29, 2939-2944.	2.2	10
77	Molecular Weight Dependency on the Production of the TNF Stimulated by Fractions of rye (13),(14)-beta- d-Glucan. Scandinavian Journal of Immunology, 2000, 52, 584-587.	1.3	10
78	Transcriptional Responses of Bacillus cereus towards Challenges with the Polysaccharide Chitosan. PLoS ONE, 2011, 6, e24304.	1.1	10
79	Preparation of high purity monodisperse oligosaccharides derived from mannuronan by size-exclusion chromatography followed by semi-preparative high-performance anion-exchange chromatography with pulsed amperometric detection. Carbohydrate Research, 2009, 344, 255-259.	1.1	9
80	Influence of Amino Acids, Buffers, and pH on the Î³-Irradiation-Induced Degradation of Alginates. Biomacromolecules, 2014, 15, 4590-4597.	2.6	9
81	Alginate-based diblock polymers: preparation, characterization and Ca-induced self-assembly. Polymer Chemistry, 2021, 12, 5412-5425.	1.9	9
82	Dependence of the content of unsubstituted (cellulosic) regions in prehydrolysed xanthans on the rate of hydrolysis by Trichoderma reesei endoglucanase. International Journal of Biological Macromolecules, 1996, 18, 93-99.	3.6	8
83	A study of bioactive, branched (1â†'3)-Î²-d-glucans in dimethylacetamide/LiCl and dimethyl sulphoxide/LiCl using size-exclusion chromatography with multi-angle light scattering detection. Journal of Chromatography A, 2013, 1305, 109-113.	1.8	8
84	Chain length distribution and aggregation of branched (1â†'3)-Î²-d-glucans from Saccharomyces cerevisae. Carbohydrate Polymers, 2012, 90, 1092-1099.	5.1	7
85	The role of side-chains in the Cr3+-induced gelation of xanthan and xylinan (acetan) variants. Carbohydrate Polymers, 1994, 25, 25-29.	5.1	6
86	Physicochemical studies on xylinan (acetan). II. Characterization by static light scattering. Biopolymers, 1998, 39, 721-728.	1.2	6
87	Comment on â€œConformational Changes and Aggregation of Alginic Acid as Determined By Fluorescence Correlation Spectroscopyâ€• Biomacromolecules, 2007, 8, 3279-3279.	2.6	6