Ivan Donati

List of Publications by Year
in descending order

99 papers	4,635 citations	117571 34 h-index	102432 66 g-index
101 all docs	101 docs citations	101 times ranked	6109 citing authors

#	Article	IF	Citations
1	Influence of Temperature and Polymer Concentration on the Nonlinear Response of Highly Acetylated Chitosanâ€"Genipin Hydrogels. Gels, 2022, 8, 194.	2.1	3
2	Sulfated lactose-modified chitosan. A novel synthetic glycosaminoglycan-like polysaccharide inducing chondrocyte aggregation. Carbohydrate Polymers, 2022, 288, 119379.	5.1	6
3	Regulation of Substrate Dissipation via Tunable Linear Elasticity Controls Cell Activity. Advanced Functional Materials, 2022, 32, .	7.8	7
4	Correction to â€œLactose-Modified Chitosan Gold(III)-PEGylated Complex-Bioconjugates: From Synthesis to Interaction with Targeted Galectin-1 Proteinâ€• Bioconjugate Chemistry, 2022, 33, 1439-1439.	1.8	0
5	Insights into Mechanical Behavior and Biological Properties of Chia Seed Mucilage Hydrogels. Gels, 2021, 7, 47.	2.1	8
6	Effect of sodium alginate molecular structure on electrospun membrane cell adhesion. Materials Science and Engineering C, 2021, 124, 112067.	3.8	27
7	Strain Hardening in Highly Acetylated Chitosan Gels. Biomacromolecules, 2021, 22, 2902-2909.	2.6	11
8	Characterization of Thermoresponsive Poly-N-Vinylcaprolactam Polymers for Biological Applications. Polymers, 2021, 13, 2639.	2.0	20
9	On the Molecular Mechanism of the Calcium-Induced Gelation of Pectate. Different Steps in the Binding of Calcium Ions by Pectate. Biomacromolecules, 2021, 22, 5000-5019.	2.6	10
10	N-isopropyl chitosan. A pH- and thermo-responsive polysaccharide for gel formation. Carbohydrate Polymers, 2020, 230, 115641.	5.1	19
11	On the Mechanism of Genipin Binding to Primary Amines in Lactose-Modified Chitosan at Neutral pH. International Journal of Molecular Sciences, 2020, 21, 6831.	1.8	18
12	Characterization of Chitosan/Hyaluronan Complex Coacervates Assembled by Varying Polymers Weight Ratio and Chitosan Physical-Chemical Composition. Colloids and Interfaces, 2020, 4, 12.	0.9	7
13	Temporary/Permanent Dual Crossâ€Link Gels Formed of a Bioactive Lactoseâ€Modified Chitosan. Macromolecular Bioscience, 2020, 20, e2000236.	2.1	8
14	Substrate Dissipation Energy Regulates Cell Adhesion and Spreading. Advanced Functional Materials, 2020, 30, 2001977.	7.8	27
15	Development of biodegradable membranes for the delivery of a bioactive chitosanâ€derivative on cartilage defects: A preliminary investigation. Journal of Biomedical Materials Research - Part A, 2020, 108, 1534-1545.	2.1	5
16	Binary Solutions of Hyaluronan and Lactose-Modified Chitosan: The Influence of Experimental Variables in Assembling Complex Coacervates. Polymers, 2020, 12, 897.	2.0	3
17	Glycosylated-Chitosan Derivatives: A Systematic Review. Molecules, 2020, 25, 1534.	1.7	26
18	pH-Assisted Gelation of Lactose-Modified Chitosan. Biomacromolecules, 2019, 20, 3070-3075.	2.6	20

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19	Biomimetic, Multiresponsive, and Self-Healing Lactose-Modified Chitosan (CTL)-Based Gels Formed via Competitor-Assisted Mechanism. ACS Biomaterials Science and Engineering, 2019, 5, 5539-5547.	2.6	11
20	Development of hyaluronan-based membranes for the healing of intestinal surgical wounds: a preliminary study. Journal of Materials Science: Materials in Medicine, 2019, 30, 60.	1.7	1
21	Chitosan Acetylation Degree Influences the Physical Properties of Polysaccharide Nanoparticles: Implication for the Innate Immune Cells Response. ACS Applied Materials & Interfaces, 2019, 11, 9794-9803.	4.0	43
22	Nucleation, reorganization and disassembly of an active network from lactose-modified chitosan mimicking biological matrices. Carbohydrate Polymers, 2019, 208, 451-456.	5.1	17
23	Exploiting natural polysaccharides to enhance in vitro bio-constructs of primary neurons and progenitor cells. Acta Biomaterialia, 2018, 73, 285-301.	4.1	28
24	On the Correlation between the Microscopic Structure and Properties of Phosphate-Cross-Linked Chitosan Gels. ACS Applied Materials & Interfaces, 2018, 10, 10761-10770.	4.0	28
25	Antibacterialâ€nanocomposite bone filler based on silver nanoparticles and polysaccharides. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e747-e759.	1.3	14
26	Mimicking mechanical response of natural tissues. Strain hardening induced by transient reticulation in lactose-modified chitosan (chitlac). International Journal of Biological Macromolecules, 2018, 106, 656-660.	3.6	21
27	Concepts for Developing Physical Gels of Chitosan and of Chitosan Derivatives. Gels, 2018, 4, 67.	2.1	85
28	Complex Coacervates between a Lactose-Modified Chitosan and Hyaluronic Acid as Radical-Scavenging Drug Carriers. Biomacromolecules, 2018, 19, 3936-3944.	2.6	37
29	Lactose-Modified Chitosan Gold(III)-PEGylated Complex-Bioconjugates: From Synthesis to Interaction with Targeted Galectin-1 Protein. Bioconjugate Chemistry, 2018, 29, 3352-3361.	1.8	29
30	The role played by the molecular weight and acetylation degree in modulating the stiffness and elasticity of chitosan gels. Carbohydrate Polymers, 2018, 196, 405-413.	5.1	39
31	Dissecting the conformational determinants of chitosan and chitlac oligomers. Biopolymers, 2018, 109, e23221.	1.2	8
32	Adhesive coatings based on melanin-like nanoparticles for surgical membranes. Colloids and Surfaces B: Biointerfaces, 2017, 155, 553-559.	2.5	20
33	Effects of supercritical carbon dioxide sterilization on polysaccharidic membranes for surgical applications. Carbohydrate Polymers, 2017, 173, 482-488.	5.1	17
34	Evaluation of concentration and dispersion of functionalized carbon nanotubes in aqueous media by means of Low Field Nuclear Magnetic Resonance. Carbon, 2017, 113, 387-394.	5.4	6
35	Boric Acid Induced Transient Cross-Links in Lactose-Modified Chitosan (Chitlac). Biomacromolecules, 2017, 18, 4206-4213.	2.6	21
36	Hydroxyapatite and bioactive glass surfaces for fiber reinforced composite implants via surface ablation by Excimer laser. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 89-96.	1.5	4

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37	Highly monodisperse colloidal coacervates based on a bioactive lactose-modified chitosan: From synthesis to characterization. Carbohydrate Polymers, 2017, 174, 360-368.	5.1	23
38	On the demixing of hyaluronan and alginate in the gel state. International Journal of Biological Macromolecules, 2017, 95, 49-53.	3.6	1
39	Myoblast Adhesion, Proliferation and Differentiation on Human Elastin-Like Polypeptide (HELP) Hydrogels. Journal of Applied Biomaterials and Functional Materials, 2017, 15, 43-53.	0.7	14
40	Hyaluronan delivery by polymer demixing in polysaccharide-based hydrogels and membranes for biomedical applications. Carbohydrate Polymers, 2016, 150, 408-418.	5.1	34
41	Enhanced bioadhesivity of dopamine-functionalized polysaccharidic membranes for general surgery applications. Acta Biomaterialia, 2016, 44, 232-242.	4.1	53
42	Insight into the ionotropic gelation of chitosan using tripolyphosphate and pyrophosphate as cross-linkers. International Journal of Biological Macromolecules, 2016, 92, 476-483.	3.6	56
43	Bioactive glass surface for fiber reinforced composite implants via surface etching by Excimer laser. Medical Engineering and Physics, 2016, 38, 664-670.	0.8	9
44	H2O2 Causes Improved Adhesion Between a Polysaccharide-based Membrane and Intestinal Serosa. Colloids and Interface Science Communications, 2016, 15, 5-8.	2.0	2
45	Adhesive and sealant interfaces for general surgery applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 626-639.	1.6	122
46	Alginateâ€"Hydroxyapatite Bone Scaffolds with Isotropic or Anisotropic Pore Structure: Material Properties and Biological Behavior. Macromolecular Materials and Engineering, 2015, 300, 989-1000.	1.7	29
47	Alginate Polymerization and Modification Are Linked in Pseudomonas aeruginosa. MBio, 2015, 6, e00453-15.	1.8	53
48	Silverâ€"polysaccharide antimicrobial nanocomposite coating for methacrylic surfaces reduces Streptococcus mutans biofilm formation in vitro. Journal of Dentistry, 2015, 43, 1483-1490.	1.7	33
49	Rheology of mixed alginate-hyaluronan aqueous solutions. International Journal of Biological Macromolecules, 2015, 78, 363-369.	3.6	6
50	Inkjet printing of Chitlac-nanosilverâ€"a method to create functional coatings for non-metallic bone implants. Biofabrication, 2014, 6, 041001.	3.7	16
51	Use of Methacrylate-Modified Chitosan to Increase the Durability of Dentine Bonding Systems. Biomacromolecules, 2014, 15, 4606-4613.	2.6	65
52	Polysaccharide-Based Networks from Homogeneous Chitosan-Tripolyphosphate Hydrogels: Synthesis and Characterization. Biomacromolecules, 2014, 15, 3396-3405.	2.6	73
53	Determination of the Composition for Binary Mixtures of Polyanions: The Case of Mixed Solutions of Alginate and Hyaluronan. Biomacromolecules, 2014, 15, 1069-1073.	2.6	3
54	In vitro antimicrobial properties of silverâ€"polysaccharide coatings on porous fiber-reinforced composites for bone implants. Journal of Materials Science: Materials in Medicine, 2013, 24, 2775-2785.	1.7	22

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55	Biological responses of silver-coated thermosets: An in vitro and in vivo study. Acta Biomaterialia, 2013, 9, 5088-5099.	4.1	60
56	Polysaccharideâ€Based Polyanionâ€“Polycationâ€“Polyanion Ternary Systems in the Concentrated Regime and Hydrogel Form. Macromolecular Chemistry and Physics, 2013, 214, 1309-1320.	1.1	14
57	Insight into the Molecular Properties of Chitlac, a Chitosan Derivative for Tissue Engineering. Journal of Physical Chemistry B, 2013, 117, 13578-13587.	1.2	25
58	Nano-composite scaffolds for bone tissue engineering containing silver nanoparticles: preparation, characterization and biological properties. Journal of Materials Science: Materials in Medicine, 2013, 24, 1799-1807.	1.7	114
59	On the Initial Binding of Alginate by Calcium Ions. The Tilted Egg-Box Hypothesis. Journal of Physical Chemistry B, 2013, 117, 7277-7282.	1.2	102
60	Terminal Sterilization of BisGMA-TEGDMA Thermoset Materials and Their Bioactive Surfaces by Supercritical CO₂. Biomacromolecules, 2012, 13, 1152-1160.	2.6	26
61	Degradation of Silverâ€“Polysaccharide Nanocomposite in Solution and as Coating on Fiber-Reinforced Composites by Lysozyme and Hydrogen Peroxide. Biomacromolecules, 2012, 13, 2605-2608.	2.6	10
62	Polysaccharide-Coated Thermosets for Orthopedic Applications: From Material Characterization to In Vivo Tests. Biomacromolecules, 2012, 13, 1564-1572.	2.6	43
63	Mnâ€alginate gels as a novel system for controlled release of Mn²⁺ in manganeseâ€enhanced MRI. Contrast Media and Molecular Imaging, 2012, 7, 265-275.	0.4	16
64	Borate complexes of X-ray iodinated contrast agents: Characterization and sorption studies for their removal from aqueous media. Journal of Hazardous Materials, 2012, 205-206, 10-16.	6.5	7
65	Polysaccharide-Based Polyanionâ€“Polycationâ€“Polyanion Ternary Systems. A Preliminary Analysis of Interpolyelectrolyte Interactions in Dilute Solutions. Biomacromolecules, 2011, 12, 4044-4056.	2.6	17
66	Mechanical Spectroscopy and Relaxometry on Alginate Hydrogels: A Comparative Analysis for Structural Characterization and Network Mesh Size Determination. Biomacromolecules, 2011, 12, 1272-1282.	2.6	73
67	Albumin-directed stereoselective reduction of 1,3-diketones and Î²-hydroxyketones to anti diols. Organic and Biomolecular Chemistry, 2011, 9, 1987.	1.5	24
68	Biological response of hydrogels embedding gold nanoparticles. Colloids and Surfaces B: Biointerfaces, 2011, 83, 331-339.	2.5	63
69	Silverâ€“polysaccharide nanocomposite antimicrobial coatings for methacrylic thermosets. Acta Biomaterialia, 2011, 7, 337-346.	4.1	120
70	Surface Modification and Polysaccharide Deposition on BisGMA/TEGDMA Thermoset. Biomacromolecules, 2010, 11, 583-592.	2.6	28
71	Novel fluorescent cycloheximide derivatives for the imaging of protein synthesis. Biochemical and Biophysical Research Communications, 2010, 396, 258-264.	1.0	5
72	Polyol Synthesis of Silver Nanoparticles: Mechanism of Reduction by Alditol Bearing Polysaccharides. Biomacromolecules, 2009, 10, 210-213.	2.6	54

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73	Effect of Elongation of Alternating Sequences on Swelling Behavior and Large Deformation Properties of Natural Alginate Gels. Journal of Physical Chemistry B, 2009, 113, 12916-12922.	1.2	50
74	Non-cytotoxic Silver Nanoparticle-Polysaccharide Nanocomposites with Antimicrobial Activity. Biomacromolecules, 2009, 10, 1429-1435.	2.6	377
75	Material Properties of Alginates. Microbiology Monographs, 2009, , 1-53.	0.3	76
76	Experimental Evidence of Counterion Affinity in Alginates: The Case of Nongelling Ion Mg²⁺. Journal of Physical Chemistry B, 2009, 113, 12877-12886.	1.2	57
77	Alginate/Hydroxyapatite Biocomposite For Bone Ingrowth: A Trabecular Structure With High And Isotropic Connectivity. Biomacromolecules, 2009, 10, 1575-1583.	2.6	183
78	Alginate/lactoseâ€modified chitosan hydrogels: A bioactive biomaterial for chondrocyte encapsulation. Journal of Biomedical Materials Research - Part A, 2008, 84A, 364-376.	2.1	103
79	Synergistic Effects in Semidilute Mixed Solutions of Alginate and Lactose-Modified Chitosan (Chitlac). Biomacromolecules, 2007, 8, 957-962.	2.6	45
80	Tuning Supramolecular Structuring at the Nanoscale Level:Â Nonstoichiometric Soluble Complexes in Dilute Mixed Solutions of Alginate and Lactose-Modified Chitosan (Chitlac). Biomacromolecules, 2007, 8, 1471-1479.	2.6	34
81	Specific Interactions versus Counterion Condensation. 1. Nongelling Ions/Polyuronate Systems. Biomacromolecules, 2006, 7, 281-287.	2.6	45
82	Effect of Ca2+, Ba2+, and Sr2+ on Alginate Microbeads. Biomacromolecules, 2006, 7, 1471-1480.	2.6	696
83	Specific Interactions versus Counterion Condensation. 2. Theoretical Treatment within the Counterion Condensation Theory. Biomacromolecules, 2006, 7, 1587-1596.	2.6	31
84	Polyelectrolyte Study of the Calcium-Induced Chain Association of Pectateâ€. Biomacromolecules, 2006, 7, 3439-3447.	2.6	24
85	Cell-compatible covalently reinforced beads obtained from a chemoenzymatically engineered alginate. Biomaterials, 2006, 27, 4726-4737.	5.7	61
86	Separation of O- and C-allyl glycoside anomeric mixtures by capillary electrophoresis and high-performance liquid chromatography. Journal of Chromatography A, 2006, 1110, 125-132.	1.8	3
87	The aggregation of pig articular chondrocyte and synthesis of extracellular matrix by a lactose-modified chitosan. Biomaterials, 2005, 26, 987-998.	5.7	136
88	The role of Galectin-1 in the interaction between chondrocytes and a lactose-modified chitosan. Biomaterials, 2005, 26, 4975-4984.	5.7	49
89	Tailor-Made Alginate Bearing Galactose Moieties on Mannuronic Residues:Â Selective Modification Achieved by a Chemoenzymatic Strategy. Biomacromolecules, 2005, 6, 88-98.	2.6	35
90	New Hypothesis on the Role of Alternating Sequences in Calciumâˆ'Alginate Gels. Biomacromolecules, 2005, 6, 1031-1040.	2.6	328

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91	Galactose-Substituted Alginate 2:Â Conformational Aspects. Biomacromolecules, 2004, 5, 186-196.	2.6	26
92	High-yield enzymatic synthesis of O-allyl Î²-d-galactopyranoside. Journal of Molecular Catalysis B: Enzymatic, 2003, 21, 153-156.	1.8	7
93	Determination of the diadic composition of alginate by means of circular dichroism: a fast and accurate improved method. Carbohydrate Research, 2003, 338, 1139-1142.	1.1	36
94	Galactose-Substituted Alginate:Â Preliminary Characterization and Study of Gelling Properties. Biomacromolecules, 2003, 4, 624-631.	2.6	37
95	Synthesis and characterization of a novel glycopolymer with protective activity toward human anti-Â-Gal antibodies. Glycobiology, 2002, 12, 283-290.	1.3	9
96	Synthesis, Characterization, and Preliminary Biological Study of Glycoconjugates of Poly(styrene-co-maleic acid). Biomacromolecules, 2002, 3, 805-812.	2.6	69
97	Albumin-controlled stereoselective reduction of 1,3-diketones to anti-diolsElectronic supplementary information (ESI) available: Scatchard and Lineweaverâ€"Burk plots. See http://www.rsc.org/suppdata/cc/b2/b200474g/. Chemical Communications, 2002, , 828-829.	2.2	18
98	Enzymatic synthesis and characterization of oligosaccharides structurally related to the repeating unit of Pullulan. Biochemical and Biophysical Research Communications, 2002, 297, 382-389.	1.0	6
99	SYNTHESIS OF GLYCOSYLAMINES: IDENTIFICATION AND QUANTIFICATION OF SIDE PRODUCTS. Journal of Carbohydrate Chemistry, 2001, 20, 263-273.	0.4	20