Abraham Joy

List of Publications by Year
in descending order

78 papers	2,865 citations	159585 30 h-index	182427 51 g-index
78 all docs	78 docs citations	78 times ranked	3287 citing authors

#	Article	IF	Citations
1	Fabrication and Bioactivity of Peptideâ€Conjugated Biomaterial Tissue Engineering Constructs. Macromolecular Rapid Communications, 2023, 44, .	3.9	1
2	Synergism between Rifampicin and Cationic Polyurethanes Overcomes Intrinsic Resistance of Escherichia coli. Biomacromolecules, 2021, 22, 2910-2920.	5.4	15
3	Impact of cell density on the bioprinting of gelatin methacrylate (GelMA) bioinks. Bioprinting, 2021, 22, e00131.	5.8	20
4	Cooperative Multivalent Weak and Strong Interfacial Interactions Enhance the Adhesion of Mussel-Inspired Adhesives. Macromolecules, 2021, 54, 5417-5428.	4.8	12
5	Peptidomimetic Polyurethanes Inhibit Bacterial Biofilm Formation and Disrupt Surface Established Biofilms. Journal of the American Chemical Society, 2021, 143, 9440-9449.	13.7	91
6	Light-Activated Adhesion and Debonding of Underwater Pressure-Sensitive Adhesives. ACS Applied Materials & Interfaces, 2021, 13, 29048-29057.	8.0	16
7	Single Chain Hydration and Dynamics of Mussel-Inspired Soybean-Based Adhesive. Jom, 2021, 73, 2460-2470.	1.9	2
8	Synthesis, Rheology, and Assessment of 3D Printability of Multifunctional Polyesters for Extrusion-Based Direct-Write 3D Printing. ACS Applied Polymer Materials, 2021, 3, 6618-6631.	4.4	9
9	Design principles for creating synthetic underwater adhesives. Chemical Society Reviews, 2021, 50, 13321-13345.	38.1	57
10	Structural insight into the viscoelastic behaviour of elastomeric polyesters: effect of the nature of fatty acid side chains and the degree of unsaturation. Polymer Chemistry, 2020, 11, 5216-5224.	3.9	8
11	Thread Size and Polymer Composition of 3D Printed and Electrospun Wound Dressings Affect Wound Healing Outcomes in an Excisional Wound Rat Model. Biomacromolecules, 2020, 21, 4030-4042.	5.4	23
12	Introduction of Hydrogen Bonds Improves the Shape Fidelity of Viscoelastic 3D Printed Scaffolds While Maintaining Their Low-Temperature Printability. Macromolecules, 2020, 53, 3690-3699.	4.8	21
13	Lower Critical Solution Temperature-Driven Self-Coacervation of Nonionic Polyester Underwater Adhesives. ACS Nano, 2020, 14, 8359-8367.	14.6	70
14	Advances in Photoreactive Tissue Adhesives Derived from Natural Polymers. ChemEngineering, 2020, 4, 32.	2.4	13
15	Elucidating the Molecular Interactions of Encapsulated Doxorubicin within a Nonionic, Thermoresponsive Polyester Coacervate. ACS Applied Bio Materials, 2020, 3, 4626-4634.	4.6	6
16	Pendant Functionalized Polyester Nanofibers with Dual Cargo Release. ACS Applied Bio Materials, 2019, 2, 4856-4863.	4.6	4
17	Bacterial Membrane Selective Antimicrobial Peptide-Mimetic Polyurethanes: Structureâ€“Property Correlations and Mechanisms of Action. Biomacromolecules, 2019, 20, 4096-4106.	5.4	31
18	Viscosity Attunes the Adhesion of Bioinspired Low Modulus Polyester Adhesive Sealants to Wet Tissues. Biomacromolecules, 2019, 20, 2577-2586.	5.4	35

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19	Modulating the crystallinity, mechanical properties, and degradability of poly(Îµ-caprolactone) derived polyesters by statistical and alternating copolymerization. Polymer Chemistry, 2019, 10, 2579-2588.	3.9	15
20	Structureâ€“Activity Study of Antibacterial Poly(ester urethane)s with Uniform Distribution of Hydrophobic and Cationic Groups. Biomacromolecules, 2019, 20, 1675-1682.	5.4	40
21	Role of pendant side-chain length in determining polymer 3D printability. Polymer Chemistry, 2019, 10, 5543-5554.	3.9	12
22	Effect of Dexamethasone on Room Temperature Three-Dimensional Printing, Rheology, and Degradation of a Low Modulus Polyester for Soft Tissue Engineering. ACS Biomaterials Science and Engineering, 2019, 5, 846-858.	5.2	15
23	Modification of narrowâ€spectrum peptidomimetic polyurethanes with fatty acid chains confers broadâ€spectrum antibacterial activity. Polymer International, 2019, 68, 1255-1262.	3.1	11
24	Multi-purposable filaments of HPMC for 3D printing of medications with tailored drug release and timed-absorption. International Journal of Pharmaceutics, 2018, 544, 285-296.	5.2	112
25	Efficient Protein Encapsulation within Thermoresponsive Coacervate-Forming Biodegradable Polyesters. ACS Macro Letters, 2018, 7, 477-481.	4.8	16
26	Sequence analysis of cyclic polyester copolymers using ion mobility tandem mass spectrometry. International Journal of Mass Spectrometry, 2018, 429, 151-157.	1.5	13
27	Opposing Effects of Side-Chain Flexibility and Hydrogen Bonding on the Thermal, Mechanical, and Rheological Properties of Supramolecularly Cross-Linked Polyesters. Macromolecules, 2018, 51, 9294-9305.	4.8	29
28	Direct Observation of the Interplay of Catechol Binding and Polymer Hydrophobicity in a Mussel-Inspired Elastomeric Adhesive. ACS Central Science, 2018, 4, 1420-1429.	11.3	69
29	Modification of a conventional polyurethane composition provides significant anti-biofilm activity against Escherichia coli. Polymer Chemistry, 2018, 9, 3195-3198.	3.9	22
30	Reorganization of an Amphiphilic Glassy Polymer Surface in Contact with Water Probed by Contact Angle and Sum Frequency Generation Spectroscopy. Macromolecules, 2018, 51, 5114-5120.	4.8	11
31	Colloid silica nanoparticles trapped morphology of polymer blends during solvent evaporation. European Polymer Journal, 2018, 107, 164-172.	5.4	8
32	A hydrophilic coumarin-based polyester for ambient-temperature initiator-free 3D printing: Chemistry, rheology and interface formation. Polymer, 2018, 152, 9-17.	3.8	21
33	Nontoxic Cationic Coumarin Polyester Coatings Prevent Pseudomonas aeruginosa Biofilm Formation. ACS Applied Materials & Interfaces, 2017, 9, 6704-6711.	8.0	35
34	Effects of Molecular Weight Reduction on Brittleâ€“Ductile Transition and Elastic Yielding Due to Noninvasive Î³ Irradiation on Polymer Glasses. Macromolecules, 2017, 50, 2447-2455.	4.8	4
35	Alternating and random-sequence polyesters with distinct physical properties. Polymer Chemistry, 2017, 8, 2397-2404.	3.9	8
36	Mannoseâ€based graft polyesters with tunable binding affinity to concanavalin A. Journal of Polymer Science Part A, 2017, 55, 3908-3917.	2.3	9

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37	Musselâ€Inspired Polyesters with Aliphatic Pendant Groups Demonstrate the Importance of Hydrophobicity in Underwater Adhesion. Advanced Materials Interfaces, 2017, 4, 1700506.	3.7	68
38	Bactericidal Peptidomimetic Polyurethanes with Remarkable Selectivity against Escherichia coli. ACS Biomaterials Science and Engineering, 2017, 3, 2588-2597.	5.2	40
39	The effect of pendant group structure on the thermoresponsive properties of N-substituted polyesters. Polymer Chemistry, 2017, 8, 7195-7206.	3.9	36
40	Engineering Alkoxyphenacyl-Polycarbonate Nanoparticles for Potential Application in Near-Infrared Light-Modulated Drug Delivery via Photon Up-Conversion Process. Journal of Nanoscience and Nanotechnology, 2017, 17, 4867-4881.	0.9	1
41	An Osteoconductive Antibiotic Bone Eluting Putty with a Custom Polymer Matrix. Polymers, 2016, 8, 247.	4.5	5
42	Assessment of alkoxylphenacyl-based polycarbonates as a potential platform for controlled delivery of a model anti-glaucoma drug. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 107, 56-66.	4.3	14
43	A Solvent and Initiator Free, Low-Modulus, Degradable Polyester Platform with Modular Functionality for Ambient-Temperature 3D Printing. Macromolecules, 2016, 49, 2429-2437.	4.8	35
44	Folate Receptorâ€“Targeted Polymeric Micellar Nanocarriers for Delivery of Orlistat as a Repurposed Drug against Triple-Negative Breast Cancer. Molecular Cancer Therapeutics, 2016, 15, 221-231.	4.1	65
45	Selfâ€emulsion polymerization of baylisâ€“hillmanâ€derived Î±â€hydroxymethylâ€substituted acrylates. Journal of Polymer Science Part A, 2015, 53, 1743-1747.	2.3	10
46	Thermoresponsive dual emission nanosensor based on quantum dots and dye labeled poly(N-isopropylacrylamide). Polymer Chemistry, 2015, 6, 2813-2816.	3.9	18
47	A Library of Thermoresponsive, Coacervate-Forming Biodegradable Polyesters. Macromolecules, 2015, 48, 3834-3842.	4.8	54
48	Dual functionalized telechelic block copolymers with reproducible block sizes prepared by microwave assisted RAFT polymerization. Polymer, 2015, 66, 110-121.	3.8	9
49	Micropatterned Coumarin Polyester Thin Films Direct Neurite Orientation. ACS Applied Materials & Interfaces, 2014, 6, 19655-19667.	8.0	18
50	Baylisâ€“Hillman Reaction as a Versatile Platform for the Synthesis of Diverse Functionalized Polymers by Chain and Step Polymerization. Macromolecules, 2014, 47, 1258-1268.	4.8	28
51	Photoresponsive polyesters by incorporation of alkoxyphenacyl or coumarin chromophores along the backbone. Photochemical and Photobiological Sciences, 2014, 13, 412-421.	2.9	13
52	Kinetics of UV Irradiation Induced Chain Scission and Cross-Linking of Coumarin-Containing Polyester Ultrathin Films. Macromolecules, 2014, 47, 2891-2898.	4.8	27
53	Formulation and photoirradiation parameters that influenced photoresponsive drug delivery using alkoxylphenacyl-based polycarbonates. European Journal of Pharmaceutics and Biopharmaceutics, 2014, 88, 962-972.	4.3	4
54	Photoresponsive Coumarin Polyesters That Exhibit Cross-Linking and Chain Scission Properties. Macromolecules, 2013, 46, 5133-5140.	4.8	82

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55	A Library of Multifunctional Polyesters with â€œPeptide-Likeâ€•Pendant Functional Groups. Biomacromolecules, 2013, 14, 2489-2493.	5.4	51
56	Biocompatibility and In Vivo Tolerability of a New Class of Photoresponsive Alkoxylphenacyl-Based Polycarbonates. Journal of Pharmaceutical Sciences, 2013, 102, 1650-1660.	3.3	12
57	Photoinduced Polymer Chain Scission of Alkoxyphenacyl Based Polycarbonates. ACS Macro Letters, 2012, 1, 1184-1188.	4.8	25
58	Predicting biomaterial property-dendritic cell phenotype relationships from the multivariate analysis of responses to polymethacrylates. Biomaterials, 2012, 33, 1699-1713.	11.4	51
59	Control of Surface Chemistry, Substrate Stiffness, and Cell Function in a Novel Terpolymer Methacrylate Library. Langmuir, 2011, 27, 1891-1899.	3.5	46
60	Computational modeling of inÂvitro biological responses on polymethacrylate surfaces. Polymer, 2011, 52, 2650-2660.	3.8	9
61	Poly(ethylene glycol) as a sensitive regulator of cell survival fate on polymeric biomaterials: the interplay of cell adhesion and pro-oxidant signaling mechanisms. Soft Matter, 2010, 6, 5196.	2.7	31
62	Simple, rapid, and highly sensitive detection of diphosgene and triphosgene by spectrophotometric methods. Talanta, 2009, 80, 231-235.	5.5	10
63	Selective one-electron oxidation of duplex DNA oligomers: reaction at thymines. Organic and Biomolecular Chemistry, 2008, 6, 916.	2.8	60
64	Polaronic semiconductor behavior of long-range charge transfer in DNA oligomers in solution: controlling barriers to long-distance radical cation migration in DNA with thymine analogs. Faraday Discussions, 2006, 131, 357-365.	3.2	5
65	One-Electron Oxidation of DNA Oligomers That Lack Guanine:Â Reaction and Strand Cleavage at Remote Thymines by Long-Distance Radical Cation Hopping. Journal of the American Chemical Society, 2006, 128, 5346-5347.	13.7	47
66	Oxidative Damage to DNA:Â Counterion-Assisted Addition of Water to Ionized DNA. Journal of the American Chemical Society, 2006, 128, 10795-10800.	13.7	34
67	Role of cations and confinement in asymmetric photochemistry: enantio- and diastereo-selective photocyclization of tropolone derivatives within zeolites. Organic and Biomolecular Chemistry, 2005, 3, 3045.	2.8	23
68	Asymmetric Photoreactions within Zeolites:â€‰ Role of Confinement and Alkali Metal Ions. Accounts of Chemical Research, 2003, 36, 509-521.	15.6	168
69	Enhanced Enantio- and Diastereoselectivity via Confinement and Cation Binding:Â Yang Photocyclization of 2-Benzoyladamantane Derivatives within Zeolitesâ€. Journal of Organic Chemistry, 2002, 67, 8339-8350.	3.2	23
70	Use of a confined space (zeolite) in enantio- and diastereo-selective photoreactions. Microporous and Mesoporous Materials, 2001, 48, 319-328.	4.4	19
71	Charge Migration in DNA: Ion-Gated Transport. Science, 2001, 294, 567-571.	12.6	373
72	Chiral Photochemistry within Zeolites. Chemistry - A European Journal, 2000, 6, 1287-1293.	3.3	77

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73	Asymmetric Induction With Cyclodextrins: Photocyclization of Tropolone Alkyl Ethers. Tetrahedron, 2000, 56, 7003-7009.	1.9	50
74	The influence of chiral auxiliaries is enhanced within zeolites. Tetrahedron Letters, 2000, 41, 8231-8235.	1.4	28
75	Chirally Modified Zeolites as Reaction Media:â€‰ Photochemistry of an Achiral Tropolone Ether. Organic Letters, 2000, 2, 119-121.	4.6	74
76	Photochemistry of a Tropolone Ether and 2,2-Dimethyl-1-(2H)-naphthalenones within a Zeolite:Â Enhanced Diastereoselectivity via Confinement. Journal of the American Chemical Society, 2000, 122, 728-729.	13.7	85
77	Asymmetrically modified zeolite as a medium for enantioselective photoreactions: Reactions from spin forbidden excited states. Tetrahedron Letters, 1997, 38, 8825-8828.	1.4	47
78	Halogenated Squaraine Dyes as Potential Photochemotherapeutic Agents. Synthesis and Study of Photophysical Properties and Quantum Efficiencies of Singlet Oxygen Generation*. Photochemistry and Photobiology, 1997, 65, 783-790.	2.5	106