Matt Baker

List of Publications by Year
in descending order

47 papers	1,961 citations	257450 24 h-index	254184 43 g-index
52 all docs	52 docs citations	52 times ranked	2913 citing authors

#	Article	IF	Citations
1	Bioprinting: From Tissue and Organ Development to <i>in Vitro</i> Models. Chemical Reviews, 2020, 120, 10547-10607.	47.7	185
2	Thiolâ€“Ene Alginate Hydrogels as Versatile Bioinks for Bioprinting. Biomacromolecules, 2018, 19, 3390-3400.	5.4	146
3	Hydrogels that listen to cells: a review of cell-responsive strategies in biomaterial design for tissue regeneration. Materials Horizons, 2017, 4, 1020-1040.	12.2	144
4	Dynamic Bioinks to Advance Bioprinting. Advanced Healthcare Materials, 2020, 9, e1901798.	7.6	141
5	ACE2 Activation Promotes Antithrombotic Activity. Molecular Medicine, 2010, 16, 210-215.	4.4	122
6	Consequences of chirality on the dynamics of a water-soluble supramolecular polymer. Nature Communications, 2015, 6, 6234.	12.8	111
7	Tailoring surface nanoroughness of electrospun scaffolds for skeletal tissue engineering. Acta Biomaterialia, 2017, 59, 82-93.	8.3	93
8	Effect of H-Bonding on Order Amplification in the Growth of a Supramolecular Polymer in Water. Journal of the American Chemical Society, 2016, 138, 13985-13995.	13.7	88
9	Supramolecular polymerisation in water; elucidating the role of hydrophobic and hydrogen-bond interactions. Soft Matter, 2016, 12, 2887-2893.	2.7	72
10	Viscoelastic Oxidized Alginates with Reversible Imine Type Crosslinks: Self-Healing, Injectable, and Bioprintable Hydrogels. Gels, 2018, 4, 85.	4.5	68
11	Dynamic diversity of synthetic supramolecular polymers in water as revealed by hydrogen/deuterium exchange. Nature Communications, 2017, 8, 15420.	12.8	54
12	From supramolecular polymers to hydrogel materials. Materials Horizons, 2014, 1, 116-120.	12.2	46
13	Supramolecular polymers for organocatalysis in water. Organic and Biomolecular Chemistry, 2015, 13, 7711-7719.	2.8	44
14	ACE2/Ang-(1â€“7)/Mas axis stimulates vascular repair-relevant functions of CD34⁺cells. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H1697-H1707.	3.2	40
15	Trends in Double Networks as Bioprintable and Injectable Hydrogel Scaffolds for Tissue Regeneration. ACS Biomaterials Science and Engineering, 2021, 7, 4077-4101.	5.2	37
16	Thiol-ene cross-linked alginate hydrogel encapsulation modulates the extracellular matrix of kidney organoids by reducing abnormal type 1a1 collagen deposition. Biomaterials, 2021, 275, 120976.	11.4	36
17	Self-assembly of electrospun nanofibers into gradient honeycomb structures. Materials and Design, 2019, 168, 107614.	7.0	35
18	Multivalency Enables Dynamic Supramolecular Hostâ€“Guest Hydrogel Formation. Biomacromolecules, 2020, 21, 2208-2217.	5.4	34

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19	Tuning Hydrogels by Mixing Dynamic Crossâ€Linkers: Enabling Cellâ€Instructive Hydrogels and Advanced Bioinks. Advanced Healthcare Materials, 2022, 11, e2101576.	7.6	34
20	Exposing Differences in Monomer Exchange Rates of Multicomponent Supramolecular Polymers in Water. ChemBioChem, 2016, 17, 207-213.	2.6	30
21	Poly(caprolactone-<i>co</i>-trimethylenecarbonate) urethane acrylate resins for digital light processing of bioresorbable tissue engineering implants. Biomaterials Science, 2019, 7, 4984-4989.	5.4	30
22	Strategies to Improve Nanofibrous Scaffolds for Vascular Tissue Engineering. Nanomaterials, 2020, 10, 887.	4.1	30
23	Realizing tissue integration with supramolecular hydrogels. Acta Biomaterialia, 2021, 124, 1-14.	8.3	29
24	Soft, Dynamic Hydrogel Confinement Improves Kidney Organoid Lumen Morphology and Reduces Epithelialâ€"Mesenchymal Transition in Culture. Advanced Science, 2022, 9, e2200543.	11.2	29
25	Benzotrifuranone: Synthesis, Structure, and Access to Polycyclic Heteroaromatics. Organic Letters, 2009, 11, 4314-4317.	4.6	27
26	Synthesis, Optical Properties, and Electronic Structures of Nucleobase-Containing Ï€-Conjugated Oligomers. Journal of Organic Chemistry, 2015, 80, 1828-1840.	3.2	27
27	Bioprinting Via a Dual-Gel Bioink Based on Poly(Vinyl Alcohol) and Solubilized Extracellular Matrix towards Cartilage Engineering. International Journal of Molecular Sciences, 2021, 22, 3901.	4.1	27
28	Patterning Vasculature: The Role of Biofabrication to Achieve an Integrated Multicellular Ecosystem. ACS Biomaterials Science and Engineering, 2016, 2, 1694-1709.	5.2	25
29	A three-dimensional biomimetic peripheral nerve model for drug testing and disease modelling. Biomaterials, 2020, 257, 120230.	11.4	24
30	Supramolecular copolymers with stimuli-responsive sequence control. Chemical Communications, 2015, 51, 16166-16168.	4.1	18
31	Biomimetic double network hydrogels: Combining dynamic and static crosslinks to enable biofabrication and control cellâ€matrix interactions. Journal of Polymer Science, 2021, 59, 2832-2843.	3.8	18
32	Molecular multifunctionalization via electronically coupled lactones. Chemical Science, 2012, 3, 1095.	7.4	13
33	Desymmetrization via Activated Esters Enables Rapid Synthesis of Multifunctional Benzene-1,3,5-tricarboxamides and Creation of Supramolecular Hydrogelators. Journal of the American Chemical Society, 2022, 144, 4057-4070.	13.7	13
34	Selective and Sequential Aminolysis of Benzotrifuranone: Synergism of Electronic Effects and Ring Strain Gradient. Journal of Organic Chemistry, 2016, 81, 9279-9288.	3.2	12
35	Fabrication of a self-assembled honeycomb nanofibrous scaffold to guide endothelial morphogenesis. Biofabrication, 2020, 12, 045001.	7.1	10
36	4D Printed Shape Morphing Biocompatible Materials Based on Anisotropic Ferromagnetic Nanoparticles. Advanced Functional Materials, 2022, 32, .	14.9	10

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37	Effects of Fiber Alignment and Coculture with Endothelial Cells on Osteogenic Differentiation of Mesenchymal Stromal Cells. Tissue Engineering - Part C: Methods, 2020, 26, 11-22.	2.1	9
38	Rapid access to C 3- and C s-symmetric AAT organogelators via ring opening of a common benzotrifuranone precursor. Supramolecular Chemistry, 2010, 22, 789-802.	1.2	8
39	An efficient and easily adjustable heating stage for digital light processing set-ups. Additive Manufacturing, 2021, 46, 102102.	3.0	8
40	Biomedical Uses of Sulfobetaine-Based Zwitterionic Materials. Organic Materials, 2020, 02, 342-357.	2.0	8
41	A comparative study of mesenchymal stem cells cultured as cellâ€only aggregates and in encapsulated hydrogels. Journal of Tissue Engineering and Regenerative Medicine, 2021, , .	2.7	5
42	Bioinspired Development of an In Vitro Engineered Fracture Callus for the Treatment of Critical Long Bone Defects. Advanced Functional Materials, 2021, 31, 2104159.	14.9	4
43	Fragmentation of organic ions bearing fixed multiple charges observed in <scp>MALDI MS</scp>. Journal of Mass Spectrometry, 2018, 53, 39-47.	1.6	3
44	Inherently chiral cone-calix[4]arenes via a subsequent upper rim ring-closing/opening methodology. Organic and Biomolecular Chemistry, 2018, 16, 7255-7264.	2.8	3
45	Supramolecular Biomaterials in the Netherlands. Tissue Engineering - Part A, 2022, , .	3.1	3
46	Electrospun Scaffolds Functionalized with a Hydrogen Sulfide Donor Stimulate Angiogenesis. ACS Applied Materials & Interfaces, 0, , .	8.0	2
47	Polymers for biology, medicine and sustainability. Polymer International, 2019, 68, 1219-1219.	3.1	1