

# Benjamin D Hatton

## List of Publications by Year in descending order

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Version: 2024-02-01

52  
papers

8,373  
citations

185998  
28  
h-index

189595  
50  
g-index

56  
all docs

56  
docs citations

56  
times ranked

9225  
citing authors

#	ARTICLE	IF	CITATIONS
1	Bioinspired self-repairing slippery surfaces with pressure-stable omniphobicity. <i>Nature</i> , 2011, 477, 443-447.	13.7	3,165
2	Design of Ice-free Nanostructured Surfaces Based on Repulsion of Impacting Water Droplets. <i>ACS Nano</i> , 2010, 4, 7699-7707.	7.3	1,000
3	A bioinspired omniphobic surface coating on medical devices prevents thrombosis and biofouling. <i>Nature Biotechnology</i> , 2014, 32, 1134-1140.	9.4	575
4	Assembly of large-area, highly ordered, crack-free inverse opal films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 10354-10359.	3.3	475
5	Past, Present, and Future of Periodic Mesoporous Organosilicas The PMOs. <i>Accounts of Chemical Research</i> , 2005, 38, 305-312.	7.6	422
6	Transparency and damage tolerance of patternable omniphobic lubricated surfaces based on inverse colloidal monolayers. <i>Nature Communications</i> , 2013, 4, 2167.	5.8	339
7	Encoding Complex Wettability Patterns in Chemically Functionalized 3D Photonic Crystals. <i>Journal of the American Chemical Society</i> , 2011, 133, 12430-12432.	6.6	237
8	Liquid-Infused Silicone As a Biofouling-Free Medical Material. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 43-51.	2.6	235
9	Multifunctional ferrofluid-infused surfaces with reconfigurable multiscale topography. <i>Nature</i> , 2018, 559, 77-82.	13.7	229
10	Periodic Mesoporous Organosilicas Containing Interconnected [Si(CH <sub>2</sub> )] <sub>3</sub> Rings. <i>Science</i> , 2003, 302, 266-269.	6.0	226
11	Predictive Model for Ice Formation on Superhydrophobic Surfaces. <i>Langmuir</i> , 2011, 27, 14143-14150.	1.6	175
12	Fine-Tuning the Degree of Stem Cell Polarization and Alignment on Ordered Arrays of High-Aspect-Ratio Nanopillars. <i>ACS Nano</i> , 2012, 6, 6222-6230.	7.3	164
13	Towards the synthetic all-optical computer: science fiction or reality?. <i>Journal of Materials Chemistry</i> , 2004, 14, 781-794.	6.7	120
14	Spatial Control of Condensation and Freezing on Superhydrophobic Surfaces with Hydrophilic Patches. <i>Advanced Functional Materials</i> , 2013, 23, 4577-4584.	7.8	109
15	Nickel@Siloxene catalytic nanosheets for high-performance CO <sub>2</sub> methanation. <i>Nature Communications</i> , 2019, 10, 2608.	5.8	104
16	Dense, bubble-free ceramic deposits from aqueous suspensions by electrophoretic deposition. <i>Journal of Materials Research</i> , 2001, 16, 321-324.	1.2	91
17	Food-Safe Modification of Stainless Steel Food-Processing Surfaces to Reduce Bacterial Biofilms. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 22902-22912.	4.0	67
18	Writing on Superhydrophobic Nanopost Arrays: Topographic Design for Bottom-up Assembly. <i>Nano Letters</i> , 2012, 12, 4551-4557.	4.5	56

#	ARTICLE	IF	CITATIONS
19	Drug self-assembly for synthesis of highly-loaded antimicrobial drug-silica particles. Scientific Reports, 2018, 8, 895.	1.6	56
20	Patterning Hierarchy in Direct and Inverse Opal Crystals. Small, 2012, 8, 1904-1911.	5.2	55
21	Transparent Organogel Films Showing Extremely Efficient and Durable Anti-Icing Performance. ACS Applied Materials & Interfaces, 2021, 13, 28925-28937.	4.0	47
22	Three-Phase Co-assembly: In Situ Incorporation of Nanoparticles into Tunable, Highly Ordered, Porous Silica Films. ACS Photonics, 2014, 1, 53-60.	3.2	44
23	Non-eluting, surface-bound enzymes disrupt surface attachment of bacteria by continuous biofilm polysaccharide degradation. Biomaterials, 2018, 167, 168-176.	5.7	41
24	Design and Fracture of Layered Al <sub>2</sub> O <sub>3</sub> /TZ3Y Composites Produced by Electrophoretic Deposition. Journal of the American Ceramic Society, 2001, 84, 571-576.	1.9	39
25	Responsive antimicrobial dental adhesive based on drug-silica co-assembled particles. Acta Biomaterialia, 2018, 76, 283-294.	4.1	33
26	Low-temperature synthesis of nanoscale silica multilayers “ atomic layer deposition in a test tube. Journal of Materials Chemistry, 2010, 20, 6009.	6.7	32
27	Non-wettable, Oxidation-Stable, Brightly Luminescent, Perfluorodecyl-Capped Silicon Nanocrystal Film. Journal of the American Chemical Society, 2014, 136, 15849-15852.	6.6	32
28	Designing Tailored Gas Diffusion Layers with Pore Size Gradients via Electrospinning for Polymer Electrolyte Membrane Fuel Cells. ACS Applied Energy Materials, 2020, 3, 2695-2707.	2.5	31
29	Preparation and hydrophobicity of biomorphic ZnO/carbon based on a lotus-leaf template. Materials Science and Engineering C, 2014, 43, 310-316.	3.8	26
30	Influence of Washing on Zirconia Powder for Electrophoretic Deposition. Journal of the American Ceramic Society, 2001, 84, 666-668.	1.9	20
31	Oil-Infused Silicone Prevents Zebra Mussel Adhesion. ACS Applied Bio Materials, 2019, 2, 5841-5847.	2.3	20
32	Preventing <i>Pseudomonas aeruginosa</i> Biofilms on Indwelling Catheters by Surface-Bound Enzymes. ACS Applied Bio Materials, 2021, 4, 8248-8258.	2.3	16
33	Lubrication dynamics of swollen silicones to limit long term fouling and microbial biofilms. Soft Matter, 2021, 17, 936-946.	1.2	15
34	Reduction of microbial adhesion on polyurethane by a sub-nanometer covalently-attached surface modifier. Colloids and Surfaces B: Biointerfaces, 2021, 200, 111579.	2.5	13
35	Antimicrobial antidegradative dental adhesive preserves restoration-tooth bond. Dental Materials, 2020, 36, 1666-1679.	1.6	8
36	Degradation Characteristics of Electrospun Gas Diffusion Layers with Custom Pore Structures for Polymer Electrolyte Membrane Fuel Cells. ACS Applied Materials & Interfaces, 2021, 13, 2414-2427.	4.0	8

#	ARTICLE	IF	CITATIONS
37	Decapod-inspired pigment modulation for active building facades. <i>Nature Communications</i> , 2022, 13, .	5.8	8
38	Electrical Conductivity of a 3Y-TZP/Alumina Laminate Composite Synthesized by Electrophoretic Deposition.. <i>Journal of the Ceramic Society of Japan</i> , 2002, 110, 959-962.	1.3	6
39	Shape-programmable fluid bubbles for responsive building skins. <i>Journal of Building Engineering</i> , 2022, 48, 103942.	1.6	4
40	Mechanical performance of a hybrid zirconia developed through hydrothermal treatment and Room-Temperature Atomic Layer Deposition (RT-ALD). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 123, 104783.	1.5	3
41	Stepwise slime mould growth as a template for urban design. <i>Scientific Reports</i> , 2022, 12, 1322.	1.6	3
42	Silica deposition on zirconia via room-temperature atomic layer deposition (RT-ALD): Effect on bond strength to veneering ceramic. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 129, 105142.	1.5	3
43	The effect of ribose pre-treatment of cortical bone on $\hat{I}^3$ -irradiation sterilization effectiveness. <i>Cell and Tissue Banking</i> , 2017, 18, 555-560.	0.5	2
44	Divisions in a Fibrillar Adhesive Increase the Adhesive Strength. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 59478-59486.	4.0	2
45	Programmable droplets: Leveraging digitally-responsive flow fields to actively tune liquid morphologies. <i>PLoS ONE</i> , 2022, 17, e0264141.	1.1	2
46	Long-Term Reduction of Bacterial Adhesion on Polyurethane by an Ultra-Thin Surface Modifier. <i>Biomedicines</i> , 2022, 10, 979.	1.4	2
47	A Comparison of Fine-Grained Alumina-Zirconia Prepared by Slip Casting and Electrophoretic Deposition.. <i>Funtai Oyobi Fummatu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy</i> , 1999, 46, 1284-1291.	0.1	1
48	Slip Casting and Electrophoretic Deposition of Suspensions of Alumina and Zirconia Fine Particles.. <i>Funtai Oyobi Fummatu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy</i> , 2000, 47, 1015-1020.	0.1	1
49	Opal Crystals: Patterning Hierarchy in Direct and Inverse Opal Crystals (Small 12/2012). <i>Small</i> , 2012, 8, 1798-1798.	5.2	1
50	Secrets revealed â€” Spatially selective wetting of plasma-patterned periodic mesoporous organosilica. <i>Canadian Journal of Chemistry</i> , 2012, 90, 1063-1068.	0.6	0
51	Silica deposition on zirconia via Room-Temperature Atomic Layer Deposition and bond strength to resin-based luting agent. <i>Ceramics International</i> , 2022, , .	2.3	0
52	Correction to â€œOil-Infused Silicone Prevents Zebra Mussel Adhesionâ€. <i>ACS Applied Bio Materials</i> , 2022, 5, 3573-3573.	2.3	0