Tobias Fey

List of Publications by Year in descending order

106 papers	2,990 citations	236925 25 h-index	182427 51 g-index
111 all docs	111 docs citations	111 times ranked	3784 citing authors

#	Article	IF	Citations
1	Additive Manufacturing of Ceramicâ€Based Materials. Advanced Engineering Materials, 2014, 16, 729-754.	3.5	610
2	Bulk-fill resin composites: Polymerization properties and extended light curing. Dental Materials, 2015, 31, 293-301.	3.5	216
3	Dextran-coated superparamagnetic iron oxide nanoparticles for magnetic resonance imaging: evaluation of size-dependent imaging properties, storage stability and safety. International Journal of Nanomedicine, 2018, Volume 13, 1899-1915.	6.7	105
4	Cobalt-Releasing 1393 Bioactive Glass-Derived Scaffolds for Bone Tissue Engineering Applications. ACS Applied Materials & Interfaces, 2014, 6, 2865-2877.	8.0	99
5	Freeze gelated porous membranes for periodontal tissue regeneration. Acta Biomaterialia, 2015, 23, 317-328.	8.3	95
6	Preceramic Paperâ€Derived Ceramics. Journal of the American Ceramic Society, 2008, 91, 3477-3492.	3.8	94
7	Effect of microstructure on the fracture behavior of biomorphous silicon carbide ceramics. Journal of the European Ceramic Society, 2002, 22, 2697-2707.	5.7	85
8	Evaluation of Angiogenesis of Bioactive Glass in the Arteriovenous Loop Model. Tissue Engineering - Part C: Methods, 2013, 19, 479-486.	2.1	77
9	Robocasting of alumina hollow filament lattice structures. Journal of the European Ceramic Society, 2013, 33, 3243-3248.	5.7	74
10	Reticulated Replica Ceramic Foams: Processing, Functionalization, and Characterization. Advanced Engineering Materials, 2017, 19, 1700369.	3.5	71
11	Development and characterization of lithium-releasing silicate bioactive glasses and their scaffolds for bone repair. Journal of Non-Crystalline Solids, 2016, 432, 65-72.	3.1	63
12	Sintering of 3<scp>D</scp>â€Printed Glass/<scp>HA</scp>p Composites. Journal of the American Ceramic Society, 2012, 95, 3387-3393.	3.8	54
13	Bioinspired Rattan-Derived SiSiC/Zeolite Monoliths: Preparation and Characterisation. Microporous and Mesoporous Materials, 2006, 90, 162-174.	4.4	53
14	Oxidation Behavior of <scp>MAX</scp> Phase <scp><scp>Ti</scp></scp>₂<scp><scp>Al</scp></scp>_(1â^'x)<scp><scp>Sn</scp></scp><sub>x Solid Solution. Journal of the American Ceramic Society, 2013, 96, 1359-1362.	3.8	53
15	Microstructure and properties of LZSA glass-ceramic foams. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 476, 89-97.	5.6	42
16	LZSA glass ceramic foams prepared by replication process. Advances in Applied Ceramics, 2005, 104, 22-29.	1.1	41
17	Thermal conductivity and microstructure characterisation of lightweight alumina and aluminaâ€“mullite ceramics. Journal of the European Ceramic Society, 2016, 36, 1469-1477.	5.7	41
18	Micro- and macroscopic design of alumina ceramics by robocasting. Journal of the European Ceramic Society, 2017, 37, 3115-3124.	5.7	41

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19	Morphological zeta-potential variation of nanoporous anodic alumina layers and cell adherence. Acta Biomaterialia, 2014, 10, 968-974.	8.3	40
20	Mechanical and electrical strain response of a piezoelectric auxetic PZT lattice structure. Smart Materials and Structures, 2016, 25, 015017.	3.5	40
21	Bioactivity and Mechanical Stability of 45S5 Bioactive Glass Scaffolds Based on Natural Marine Sponges. Annals of Biomedical Engineering, 2016, 44, 1881-1893.	2.5	35
22	Microcellular Al2O3Ceramics from Wood for Filter Applications. Journal of the American Ceramic Society, 2008, 91, 852-859.	3.8	34
23	Hierarchically ordered foams derived from polysiloxanes with catalytically active coatings. Journal of the European Ceramic Society, 2014, 34, 1715-1725.	5.7	34
24	Intrinsic Vascularization of Recombinant eADF4(C16) Spider Silk Matrices in the Arteriovenous Loop Model. Tissue Engineering - Part A, 2019, 25, 1504-1513.	3.1	29
25	Modular ceramic scaffolds for individual implants. Acta Biomaterialia, 2018, 80, 390-400.	8.3	28
26	Direct ink writing of three dimensional Ti2AlC porous structures. Additive Manufacturing, 2019, 28, 365-372.	3.0	28
27	Porous polysilazane-derived ceramic structures generated through photopolymerization-assisted solidification templating. Journal of the European Ceramic Society, 2019, 39, 838-845.	5.7	26
28	Microstructural, mechanical and thermal characterization of alumina gel-cast foams manufactured with the use of agarose as gelling agent. Journal of Porous Materials, 2015, 22, 1305-1312.	2.6	25
29	Crack Healing in Ti₂Al_{0.5}Sn_{0.5}Câ€“Al₂O₃ Composites. Journal of the American Ceramic Society, 2015, 98, 1604-1610.	3.8	25
30	Influence of Cell Size on Mechanical and Piezoelectric Properties of PZT and LNKN Ceramic Foams. Advanced Engineering Materials, 2017, 19, 1700420.	3.5	25
31	Microstructure, thermal conductivity and simulation of elastic modulus of MAX-phase (Ti2AlC) gel-cast foams. Journal of the European Ceramic Society, 2018, 38, 3424-3432.	5.7	25
32	Enhanced vascularization and de novo tissue formation in hydrogels made of engineered RGD-tagged spider silk proteins in the arteriovenous loop model. Biofabrication, 2021, 13, 045003.	7.1	25
33	Fast production of monolithic carbide-derived carbons with secondary porosity produced by chlorination of carbides containing a free metal phase. Carbon, 2011, 49, 4359-4367.	10.3	24
34	Sol-gel infiltration of complex cellular indirect 3D printed alumina. Journal of the European Ceramic Society, 2018, 38, 3603-3609.	5.7	24
35	Encapsulation of Mesenchymal Stem Cells Improves Vascularization of Alginate-Based Scaffolds. Tissue Engineering - Part A, 2018, 24, 1320-1331.	3.1	23
36	Hierarchicalâ€Porous Ceramic Foams by a Combination of Replica and Freeze Technique. Advanced Engineering Materials, 2019, 21, 1801362.	3.5	21

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37	Processing of Ceramic Foams with Hierarchical Cell Structure. Advanced Engineering Materials, 2010, 12, 884-892.	3.5	20
38	Enhancement of the antimicrobial properties of orthorhombic molybdenum trioxide by thermal induced fracturing of the hydrates. Materials Science and Engineering C, 2016, 58, 1064-1070.	7.3	20
39	Al2O3/Cu-O composites fabricated by pressureless infiltration of paper-derived Al2O3 porous preforms. Ceramics International, 2018, 44, 20835-20840.	4.8	20
40	Laser pyrolysis of an organosilazane-based glass/ZrO2 composite coating system. Materials and Design, 2016, 109, 644-651.	7.0	18
41	Robocasting of carbon-alumina core-shell composites using co-extrusion. Rapid Prototyping Journal, 2017, 23, 423-433.	3.2	18
42	Human Umbilical Vein Endothelial Cell Support Bone Formation of Adipose-Derived Stem Cell-Loaded and 3D-Printed Osteogenic Matrices in the Arteriovenous Loop Model. Tissue Engineering - Part A, 2021, 27, 413-423.	3.1	18
43	Porous Alumina Ceramics with Multimodal Pore Size Distributions. Materials, 2021, 14, 3294.	2.9	18
44	Extrusion Foaming of a Preceramic Silicone Resin with a Variety of Profiles and Morphologies. Advanced Engineering Materials, 2012, 14, 1110-1115.	3.5	15
45	An advanced method to manufacture hierarchically structured carbide-derived carbon monoliths. Carbon, 2014, 70, 30-37.	10.3	15
46	Hierarchical Surface Texturing of Hydroxyapatite Ceramics: Influence on the Adhesive Bonding Strength of Polymeric Polycaprolactone. Journal of Functional Biomaterials, 2020, 11, 73.	4.4	15
47	Stress distribution in biomorphous SiC-ceramics under radial tensile loading. Journal of the European Ceramic Society, 2005, 25, 1015-1024.	5.7	14
48	Vibration Assisted Selfâ€Assembly Processing of Ceramicâ€Based Composites with Modular Metaâ€Structure. Journal of the American Ceramic Society, 2012, 95, 95-101.	3.8	14
49	Oneâ€or twoâ€dimensional channel structures and properties of piezoelectric composites via freezeâ€casting. Journal of the American Ceramic Society, 2017, 100, 5400-5408.	3.8	14
50	Automated 3D assembly of periodic aluminaâ€epoxy composite structures. Journal of the American Ceramic Society, 2018, 101, 3864-3873.	3.8	14
51	Structural commonalities and deviations in the hierarchical organization of crossed-lamellar shells: A case study on the shell of the bivalve Glycymeris glycymeris. Journal of Materials Research, 2016, 31, 536-546.	2.6	13
52	Resistance curves of short-fiber reinforced methacrylate-based biomedical composites. Engineering Fracture Mechanics, 2018, 190, 146-158.	4.3	13
53	Lead-free piezoelectric (Ba,Ca)(Ti,Zr)O3 scaffolds for enhanced antibacterial property. Materials Letters, 2021, 297, 129969.	2.6	13
54	Graded Cellular Ceramics from Continuous Foam Extrusion. Advanced Engineering Materials, 2012, 14, 1097-1103.	3.5	12

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55	Thermal and Electrical Conductivity of Amorphous and Graphitized Carbideâ€Derived Carbon Monoliths. Chemical Engineering and Technology, 2016, 39, 1121-1129.	1.5	12
56	The pomelo peel and derived nanoscale-precision gradient silica foams. Bioinspired, Biomimetic and Nanobiomaterials, 2012, 1, 117-122.	0.9	11
57	Synthesis of Ti₂SnC MAX Phase by Mechanical Activation and Melt Infiltration. Advanced Engineering Materials, 2012, 14, 85-91.	3.5	11
58	Nb2AlC-particle induced accelerated crack healing in ZrO2â€“matrix composites. Ceramics International, 2018, 44, 19352-19361.	4.8	11
59	Vegetable hierarchical structures as template for bone regeneration: New bioâ€ceramization process for the development of a bone scaffold applied to an experimental sheep model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 600-611.	3.4	10
60	Temperatureâ€•and Stressâ€Dependent Electromechanical Response of Porous Pb(Zr,Ti)O 3. Advanced Engineering Materials, 2020, 22, 2000389.	3.5	10
61	Vacuum-Induced Surface Freezing to Produce Monoliths of Aligned Porous Alumina. Materials, 2016, 9, 983.	2.9	9
62	Evaluation of in vivo angiogenetic effects of copper doped bioactive glass scaffolds in the AV loop model. Biomedical Glasses, 2016, 2, .	2.4	9
63	Biomorphous Silicon Carbide as Novel Loop Heat Pipe Wicks. Advanced Engineering Materials, 2017, 19, 1600379.	3.5	9
64	Topological interlocking and damage mechanisms in periodic Ti2AlC-Al building block composites. Journal of the European Ceramic Society, 2019, 39, 2003-2009.	5.7	9
65	Influence of Porosity Orientation on Physical Properties in Porous PZT Ceramics. Advanced Engineering Materials, 2019, 21, 1900390.	3.5	9
66	Fabrication and characterization of porous mullite ceramics derived from fluoride-assisted Metakaolin-Al(OH)3 annealing for filtration applications. Open Ceramics, 2022, 9, 100240.	2.0	9
67	Injection Molding of 3-3 Hydroxyapatite Composites. Materials, 2020, 13, 1907.	2.9	8
68	Photoelastic Imaging of Residual Stress Distribution in Epoxy Interface Layers of Ceramics with Periodic Buildingâ€Block Structure. Advanced Engineering Materials, 2013, 15, 1099-1104.	3.5	7
69	Ceramics for Sustainable Energy Technologies with a Focus on Polymer-Derived Ceramics. , 2014, , 501-533.		7
70	Freezing kinetics of vacuum-induced surface directional freezing in a glass vial. Chemical Engineering Science, 2017, 167, 154-160.	3.8	7
71	Porous piezoelectric ceramics with 3-3-connectivity fabricated by impregnation of cellulose paper structures. Materials Letters, 2017, 206, 158-161.	2.6	7
72	Paperâ€Derived Ferroelectric Ceramics: A Feasibility Study. Advanced Engineering Materials, 2018, 20, 1800052.	3.5	7

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73	Open-Cellular Alumina Foams with Hierarchical Strut Porosity by Ice Templating: A Thickening Agent Study. Materials, 2021, 14, 1060.	2.9	7
74	Adsorption of Nickel Ions on Oxygenâ€Functionalized Carbons. Chemical Engineering and Technology, 2016, 39, 715-722.	1.5	6
75	Microchanneled biomorphous Al2O3 coated with TiO2 aerogel for photocatalytic reduction of 4-nitrophenol. Ceramics International, 2022, 48, 15946-15950.	4.8	6
76	Using Supercritical Carbon Dioxide for Physical Foaming of Advanced Polymer Materials. International Polymer Processing, 2011, 26, 437-443.	0.5	5
77	Influence of Different Irradiation Protocols on Vascularization and Bone Formation Parameters in Rat Femora. Tissue Engineering - Part C: Methods, 2017, 23, 583-591.	2.1	5
78	Secondary Pyroelectric Effect and Figure of Merit of Ferroelectric 0â€“3 Composites. Advanced Engineering Materials, 2019, 21, 1900241.	3.5	5
79	Phase Evolution, Filler-Matrix Interactions, and Piezoelectric Properties in Lead Zirconate Titanate (PZT)-Filled Polymer-Derived Ceramics (PDCs). Materials, 2020, 13, 1520.	2.9	5
80	Electromechanical properties of paperâ€derived potassium sodium niobate piezoelectric ceramics. Journal of the American Ceramic Society, 2022, 105, 6755-6764.	3.8	5
81	Tortuosity of Aligned Channels in Alumina Membranes Produced by Vacuum-Induced Surface Directional Freezing. Materials, 2017, 10, 409.	2.9	4
82	Encapsulation of Reactive Ti 2 AlC and Nb 2 AlC Particles via a Boehmite Precipitation Route. Advanced Engineering Materials, 2019, 21, 1900048.	3.5	4
83	Advanced Estimation of Compressive Strength and Fracture Behavior in Ceramic Honeycombs by Polarimetry Measurements of Similar Epoxy Resin Honeycombs. Materials, 2022, 15, 2361.	2.9	4
84	Microsurgical Transplantation of Pedicled Muscles in an Isolation Chamberâ€”A Novel Approach to Engineering Muscle Constructs via Perfusion-Decellularization. Journal of Personalized Medicine, 2022, 12, 442.	2.5	4
85	Biomorphous Metalâ€Ceramicâ€Composites with High Coefficient of Friction. Advanced Engineering Materials, 2007, 9, 892-897.	3.5	3
86	Modular Lattice Constructs for Biological Joint Resurfacing. Tissue Engineering - Part A, 2019, 25, 1053-1062.	3.1	3
87	Shape Matters: Crystal Morphology and Surface Topography Alter Bioactivity of Bioceramics in Simulated Body Fluid. Advanced Engineering Materials, 2020, 22, 2000044.	3.5	3
88	Porous TaCx ISOL target materials from mould-casted Ta4AlC3. Journal of the European Ceramic Society, 2021, 41, 3947-3959.	5.7	3
89	Free Transplantation of a Tissue Engineered Bone Graft into an Irradiated, Critical-Size Femoral Defect in Rats. Cells, 2021, 10, 2256.	4.1	3
90	Deformation Behavior of 2D Composite Cellular Lattices of Ceramic Building Blocks and Epoxy Resin. Advanced Engineering Materials, 2022, 24, .	3.5	3

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91	Porous Functional Graded Bioceramics with Integrated Interface Textures. Ceramics, 2021, 4, 681-695.	2.6	3
92	Aligned Porous Structure of (Ba,Ca)(Ti,Zr)O₃ Piezoelectric Ceramics for Enhanced Catalytic Activity. Physica Status Solidi (B): Basic Research, 2022, 259, .	1.5	3
93	Fabrication of Hydroxyapatite Ceramics with Interconnected Macro Porosity. Key Engineering Materials, 2005, 284-286, 277-280.	0.4	2
94	Biomorphous Ceramics from Lignocellulosic Preforms. , 2013, , 527-555.		2
95	Adjustment of the Optical Properties of Dispersion Derived Carbon Nanotube Coatings. Advanced Engineering Materials, 2016, 18, 624-631.	3.5	2
96	Deformation Behavior of 2D Composite Cellular Lattices of Ceramic Building Blocks and Epoxy Resin. Advanced Engineering Materials, 0, , 2100536.	3.5	2
97	Influence of ÂµCT scanning resolution and volume on FEM-simulation of periodic 3D-printed porous ceramics. Materials Letters, 2021, 303, 130529.	2.6	2
98	Fatigue Life Optimized Layer Architecture of Ultrafineâ€Grained Alâ€“Ti Laminates Under Bending Stresses. Advanced Engineering Materials, 2022, 24, .	3.5	2
99	Additive manufactured replica foams. Open Ceramics, 2022, 10, 100258.	2.0	2
100	Enhancement of the Carbothermal Reduction of Hafnium Oxide by Silicon. Advanced Engineering Materials, 2017, 19, 1600377.	3.5	1
101	Thermochemical calculations of the oxidation behavior of Nb2AlC MAX phase in ZrO2â€“matrix composites. Ceramics International, 2018, 44, 15747-15753.	4.8	1
102	Realisation of Large Cavities in Multilayer Ceramics by Cold Low Pressure Lamination and Their Characterisation by Î¼CT. Additional Conferences (Device Packaging HiTEC HiTEN & CICMT), 2012, 2012, 000263-000268.	0.2	1
103	Stress and Deformation Behavior of 2D Composite Cellular Actuator Structures of Ceramic Building Blocks and Epoxy Resins. Physica Status Solidi (B): Basic Research, 0, , 2100591.	1.5	1
104	Celebrating the 65th Birthday of Professor Peter Greil. Advanced Engineering Materials, 2019, 21, 1900484.	3.5	0
105	Determination of the representative volume-of-interest (REVOI) in ceramic replica foams. Open Ceramics, 2021, 7, 100154.	2.0	0
106	Strategies to Control In Vitro Degradation of Mg Scaffolds Processed by Powder Metallurgy. Metals, 2022, 12, 566.	2.3	0