

# Tobias Fey

## List of Publications by Year in descending order

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106  
papers

2,990  
citations

236925

25  
h-index

182427

51  
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111  
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111  
docs citations

111  
times ranked

3784  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fatigue Life Optimized Layer Architecture of Ultrafine-Grained Al-Ti Laminates Under Bending Stresses. <i>Advanced Engineering Materials</i> , 2022, 24, .	3.5	2
2	Deformation Behavior of 2D Composite Cellular Lattices of Ceramic Building Blocks and Epoxy Resin. <i>Advanced Engineering Materials</i> , 2022, 24, .	3.5	3
3	Microchanneled biomorphous Al <sub>2</sub> O <sub>3</sub> coated with TiO <sub>2</sub> aerogel for photocatalytic reduction of 4-nitrophenol. <i>Ceramics International</i> , 2022, 48, 15946-15950.	4.8	6
4	Fabrication and characterization of porous mullite ceramics derived from fluoride-assisted Metakaolin-Al(OH) <sub>3</sub> annealing for filtration applications. <i>Open Ceramics</i> , 2022, 9, 100240.	2.0	9
5	Advanced Estimation of Compressive Strength and Fracture Behavior in Ceramic Honeycombs by Polarimetry Measurements of Similar Epoxy Resin Honeycombs. <i>Materials</i> , 2022, 15, 2361.	2.9	4
6	Strategies to Control In Vitro Degradation of Mg Scaffolds Processed by Powder Metallurgy. <i>Metals</i> , 2022, 12, 566.	2.3	0
7	Microsurgical Transplantation of Pedicled Muscles in an Isolation Chamber—A Novel Approach to Engineering Muscle Constructs via Perfusion-Decellularization. <i>Journal of Personalized Medicine</i> , 2022, 12, 442.	2.5	4
8	Aligned Porous Structure of (Ba,Ca)(Ti,Zr)O <sub>3</sub> Piezoelectric Ceramics for Enhanced Catalytic Activity. <i>Physica Status Solidi (B): Basic Research</i> , 2022, 259, .	1.5	3
9	Additive manufactured replica foams. <i>Open Ceramics</i> , 2022, 10, 100258.	2.0	2
10	Electromechanical properties of paper-derived potassium sodium niobate piezoelectric ceramics. <i>Journal of the American Ceramic Society</i> , 2022, 105, 6755-6764.	3.8	5
11	Human Umbilical Vein Endothelial Cell Support Bone Formation of Adipose-Derived Stem Cell-Loaded and 3D-Printed Osteogenic Matrices in the Arteriovenous Loop Model. <i>Tissue Engineering - Part A</i> , 2021, 27, 413-423.	3.1	18
12	Open-Cellular Alumina Foams with Hierarchical Strut Porosity by Ice Templating: A Thickening Agent Study. <i>Materials</i> , 2021, 14, 1060.	2.9	7
13	Porous Alumina Ceramics with Multimodal Pore Size Distributions. <i>Materials</i> , 2021, 14, 3294.	2.9	18
14	Enhanced vascularization and de novo tissue formation in hydrogels made of engineered RGD-tagged spider silk proteins in the arteriovenous loop model. <i>Biofabrication</i> , 2021, 13, 045003.	7.1	25
15	Porous TaCx ISOL target materials from mould-casted Ta <sub>4</sub> AlC <sub>3</sub> . <i>Journal of the European Ceramic Society</i> , 2021, 41, 3947-3959.	5.7	3
16	Free Transplantation of a Tissue Engineered Bone Graft into an Irradiated, Critical-Size Femoral Defect in Rats. <i>Cells</i> , 2021, 10, 2256.	4.1	3
17	Lead-free piezoelectric (Ba,Ca)(Ti,Zr)O <sub>3</sub> scaffolds for enhanced antibacterial property. <i>Materials Letters</i> , 2021, 297, 129969.	2.6	13
18	Determination of the representative volume-of-interest (REVOI) in ceramic replica foams. <i>Open Ceramics</i> , 2021, 7, 100154.	2.0	0

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19	Influence of $\mu$ CT scanning resolution and volume on FEM-simulation of periodic 3D-printed porous ceramics. <i>Materials Letters</i> , 2021, 303, 130529.	2.6	2
20	Porous Functional Graded Bioceramics with Integrated Interface Textures. <i>Ceramics</i> , 2021, 4, 681-695.	2.6	3
21	Vegetable hierarchical structures as template for bone regeneration: New bio-ceramicization process for the development of a bone scaffold applied to an experimental sheep model. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 600-611.	3.4	10
22	Hierarchical Surface Texturing of Hydroxyapatite Ceramics: Influence on the Adhesive Bonding Strength of Polymeric Polycaprolactone. <i>Journal of Functional Biomaterials</i> , 2020, 11, 73.	4.4	15
23	Shape Matters: Crystal Morphology and Surface Topography Alter Bioactivity of Bioceramics in Simulated Body Fluid. <i>Advanced Engineering Materials</i> , 2020, 22, 2000044.	3.5	3
24	Temperature- and Stress-Dependent Electromechanical Response of Porous Pb(Zr,Ti)O <sub>3</sub> . <i>Advanced Engineering Materials</i> , 2020, 22, 2000389.	3.5	10
25	Phase Evolution, Filler-Matrix Interactions, and Piezoelectric Properties in Lead Zirconate Titanate (PZT)-Filled Polymer-Derived Ceramics (PDCs). <i>Materials</i> , 2020, 13, 1520.	2.9	5
26	Injection Molding of 3-3 Hydroxyapatite Composites. <i>Materials</i> , 2020, 13, 1907.	2.9	8
27	Topological interlocking and damage mechanisms in periodic Ti <sub>2</sub> AlC-Al building block composites. <i>Journal of the European Ceramic Society</i> , 2019, 39, 2003-2009.	5.7	9
28	Secondary Pyroelectric Effect and Figure of Merit of Ferroelectric $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ Composites. <i>Advanced Engineering Materials</i> , 2019, 21, 1900241.	3.5	5
29	Influence of Porosity Orientation on Physical Properties in Porous PZT Ceramics. <i>Advanced Engineering Materials</i> , 2019, 21, 1900390.	3.5	9
30	Celebrating the 65 <sup>th</sup> Birthday of Professor Peter Greil. <i>Advanced Engineering Materials</i> , 2019, 21, 1900484.	3.5	0
31	Direct ink writing of three dimensional Ti <sub>2</sub> AlC porous structures. <i>Additive Manufacturing</i> , 2019, 28, 365-372.	3.0	28
32	Hierarchical Porous Ceramic Foams by a Combination of Replica and Freeze Technique. <i>Advanced Engineering Materials</i> , 2019, 21, 1801362.	3.5	21
33	Intrinsic Vascularization of Recombinant eADF4(C16) Spider Silk Matrices in the Arteriovenous Loop Model. <i>Tissue Engineering - Part A</i> , 2019, 25, 1504-1513.	3.1	29
34	Encapsulation of Reactive Ti <sub>2</sub> AlC and Nb <sub>2</sub> AlC Particles via a Boehmite Precipitation Route. <i>Advanced Engineering Materials</i> , 2019, 21, 1900048.	3.5	4
35	Modular Lattice Constructs for Biological Joint Resurfacing. <i>Tissue Engineering - Part A</i> , 2019, 25, 1053-1062.	3.1	3
36	Porous polysilazane-derived ceramic structures generated through photopolymerization-assisted solidification templating. <i>Journal of the European Ceramic Society</i> , 2019, 39, 838-845.	5.7	26

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37	Automated 3D assembly of periodic alumina-epoxy composite structures. Journal of the American Ceramic Society, 2018, 101, 3864-3873.	3.8	14
38	Sol-gel infiltration of complex cellular indirect 3D printed alumina. Journal of the European Ceramic Society, 2018, 38, 3603-3609.	5.7	24
39	Microstructure, thermal conductivity and simulation of elastic modulus of MAX-phase (Ti <sub>2</sub> AlC) gel-cast foams. Journal of the European Ceramic Society, 2018, 38, 3424-3432.	5.7	25
40	Encapsulation of Mesenchymal Stem Cells Improves Vascularization of Alginate-Based Scaffolds. Tissue Engineering - Part A, 2018, 24, 1320-1331.	3.1	23
41	Paper-Derived Ferroelectric Ceramics: A Feasibility Study. Advanced Engineering Materials, 2018, 20, 1800052.	3.5	7
42	Resistance curves of short-fiber reinforced methacrylate-based biomedical composites. Engineering Fracture Mechanics, 2018, 190, 146-158.	4.3	13
43	Modular ceramic scaffolds for individual implants. Acta Biomaterialia, 2018, 80, 390-400.	8.3	28
44	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
45	Nb <sub>2</sub> AlC-particle induced accelerated crack healing in ZrO <sub>2</sub> -matrix composites. Ceramics International, 2018, 44, 19352-19361.	4.8	11
46	Al <sub>2</sub> O <sub>3</sub> /Cu-O composites fabricated by pressureless infiltration of paper-derived Al <sub>2</sub> O <sub>3</sub> porous preforms. Ceramics International, 2018, 44, 20835-20840.	4.8	20
47	Thermochemical calculations of the oxidation behavior of Nb <sub>2</sub> AlC MAX phase in ZrO <sub>2</sub> -matrix composites. Ceramics International, 2018, 44, 15747-15753.	4.8	1
48	Robocasting of carbon-alumina core-shell composites using co-extrusion. Rapid Prototyping Journal, 2017, 23, 423-433.	3.2	18
49	Micro- and macroscopic design of alumina ceramics by robocasting. Journal of the European Ceramic Society, 2017, 37, 3115-3124.	5.7	41
50	Freezing kinetics of vacuum-induced surface directional freezing in a glass vial. Chemical Engineering Science, 2017, 167, 154-160.	3.8	7
51	Reticulated Replica Ceramic Foams: Processing, Functionalization, and Characterization. Advanced Engineering Materials, 2017, 19, 1700369.	3.5	71
52	One- or two-dimensional channel structures and properties of piezoelectric composites via freeze-casting. Journal of the American Ceramic Society, 2017, 100, 5400-5408.	3.8	14
53	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
54	Influence of Cell Size on Mechanical and Piezoelectric Properties of PZT and LNKN Ceramic Foams. Advanced Engineering Materials, 2017, 19, 1700420.	3.5	25

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55	Porous piezoelectric ceramics with 3-3-connectivity fabricated by impregnation of cellulose paper structures. <i>Materials Letters</i> , 2017, 206, 158-161.	2.6	7
56	Enhancement of the Carbothermal Reduction of Hafnium Oxide by Silicon. <i>Advanced Engineering Materials</i> , 2017, 19, 1600377.	3.5	1
57	Biomorphous Silicon Carbide as Novel Loop Heat Pipe Wicks. <i>Advanced Engineering Materials</i> , 2017, 19, 1600379.	3.5	9
58	Tortuosity of Aligned Channels in Alumina Membranes Produced by Vacuum-Induced Surface Directional Freezing. <i>Materials</i> , 2017, 10, 409.	2.9	4
59	Vacuum-Induced Surface Freezing to Produce Monoliths of Aligned Porous Alumina. <i>Materials</i> , 2016, 9, 983.	2.9	9
60	Thermal and Electrical Conductivity of Amorphous and Graphitized Carbide-Derived Carbon Monoliths. <i>Chemical Engineering and Technology</i> , 2016, 39, 1121-1129.	1.5	12
61	Adsorption of Nickel Ions on Oxygen-Functionalized Carbons. <i>Chemical Engineering and Technology</i> , 2016, 39, 715-722.	1.5	6
62	Adjustment of the Optical Properties of Dispersion Derived Carbon Nanotube Coatings. <i>Advanced Engineering Materials</i> , 2016, 18, 624-631.	3.5	2
63	Evaluation of in vivo angiogenetic effects of copper doped bioactive glass scaffolds in the AV loop model. <i>Biomedical Glasses</i> , 2016, 2, .	2.4	9
64	Bioactivity and Mechanical Stability of 45S5 Bioactive Glass Scaffolds Based on Natural Marine Sponges. <i>Annals of Biomedical Engineering</i> , 2016, 44, 1881-1893.	2.5	35
65	Structural commonalities and deviations in the hierarchical organization of crossed-lamellar shells: A case study on the shell of the bivalve <i>Glycymeris glycymeris</i> . <i>Journal of Materials Research</i> , 2016, 31, 536-546.	2.6	13
66	Laser pyrolysis of an organosilazane-based glass/ZrO <sub>2</sub> composite coating system. <i>Materials and Design</i> , 2016, 109, 644-651.	7.0	18
67	Mechanical and electrical strain response of a piezoelectric auxetic PZT lattice structure. <i>Smart Materials and Structures</i> , 2016, 25, 015017.	3.5	40
68	Thermal conductivity and microstructure characterisation of lightweight alumina and alumina-mullite ceramics. <i>Journal of the European Ceramic Society</i> , 2016, 36, 1469-1477.	5.7	41
69	Enhancement of the antimicrobial properties of orthorhombic molybdenum trioxide by thermal induced fracturing of the hydrates. <i>Materials Science and Engineering C</i> , 2016, 58, 1064-1070.	7.3	20
70	Development and characterization of lithium-releasing silicate bioactive glasses and their scaffolds for bone repair. <i>Journal of Non-Crystalline Solids</i> , 2016, 432, 65-72.	3.1	63
71	Bulk-fill resin composites: Polymerization properties and extended light curing. <i>Dental Materials</i> , 2015, 31, 293-301.	3.5	216
72	Freeze gelled porous membranes for periodontal tissue regeneration. <i>Acta Biomaterialia</i> , 2015, 23, 317-328.	8.3	95

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73	Microstructural, mechanical and thermal characterization of alumina gel-cast foams manufactured with the use of agarose as gelling agent. <i>Journal of Porous Materials</i> , 2015, 22, 1305-1312.	2.6	25
74	Crack Healing in $\text{Ti}_2\text{Al}_{0.5}\text{Sn}_{0.5}\text{Ca}$ $\text{Al}_2\text{O}_3$ Composites. <i>Journal of the American Ceramic Society</i> , 2015, 98, 1604-1610.	3.8	25
75	Ceramics for Sustainable Energy Technologies with a Focus on Polymer-Derived Ceramics. , 2014, , 501-533.		7
76	Hierarchically ordered foams derived from polysiloxanes with catalytically active coatings. <i>Journal of the European Ceramic Society</i> , 2014, 34, 1715-1725.	5.7	34
77	Additive Manufacturing of Ceramic-Based Materials. <i>Advanced Engineering Materials</i> , 2014, 16, 729-754.	3.5	610
78	Morphological zeta-potential variation of nanoporous anodic alumina layers and cell adherence. <i>Acta Biomaterialia</i> , 2014, 10, 968-974.	8.3	40
79	Cobalt-Releasing 1393 Bioactive Glass-Derived Scaffolds for Bone Tissue Engineering Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 2865-2877.	8.0	99
80	An advanced method to manufacture hierarchically structured carbide-derived carbon monoliths. <i>Carbon</i> , 2014, 70, 30-37.	10.3	15
81	Photoelastic Imaging of Residual Stress Distribution in Epoxy Interface Layers of Ceramics with Periodic Building-Block Structure. <i>Advanced Engineering Materials</i> , 2013, 15, 1099-1104.	3.5	7
82	Robocasting of alumina hollow filament lattice structures. <i>Journal of the European Ceramic Society</i> , 2013, 33, 3243-3248.	5.7	74
83	Evaluation of Angiogenesis of Bioactive Glass in the Arteriovenous Loop Model. <i>Tissue Engineering - Part C: Methods</i> , 2013, 19, 479-486.	2.1	77
84	Biomorphous Ceramics from Lignocellulosic Preforms. , 2013, , 527-555.		2
85	Oxidation Behavior of $\text{MAX}$ Phase $\text{Ti}_2\text{Al}(\text{Ti})\text{Sn}_8$ Solid Solution. <i>Journal of the American Ceramic Society</i> , 2013, 96, 1359-1362.	3.8	58
86	The pomelo peel and derived nanoscale-precision gradient silica foams. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2012, 1, 117-122.	0.9	11
87	Graded Cellular Ceramics from Continuous Foam Extrusion. <i>Advanced Engineering Materials</i> , 2012, 14, 1097-1103.	3.5	12
88	Extrusion Foaming of a Pre-ceramic Silicone Resin with a Variety of Profiles and Morphologies. <i>Advanced Engineering Materials</i> , 2012, 14, 1110-1115.	3.5	15
89	Vibration Assisted Self-Assembly Processing of Ceramic-Based Composites with Modular Meta-Structure. <i>Journal of the American Ceramic Society</i> , 2012, 95, 95-101.	3.8	14
90	Sintering of $3\text{D}$ -Printed Glass/HA-p Composites. <i>Journal of the American Ceramic Society</i> , 2012, 95, 3387-3393.	3.8	54

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91	Synthesis of Ti <sub>2</sub> SnC MAX Phase by Mechanical Activation and Melt Infiltration. Advanced Engineering Materials, 2012, 14, 85-91.	3.5	11
92	Realisation of Large Cavities in Multilayer Ceramics by Cold Low Pressure Lamination and Their Characterisation by $\mu$ CT. Additional Conferences (Device Packaging HiTEC HiTEN & CICMT), 2012, 2012, 000263-000268.	0.2	1
93	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
94	Using Supercritical Carbon Dioxide for Physical Foaming of Advanced Polymer Materials. International Polymer Processing, 2011, 26, 437-443.	0.5	5
95	Processing of Ceramic Foams with Hierarchical Cell Structure. Advanced Engineering Materials, 2010, 12, 884-892.	3.5	20
96	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
97	Microcellular Al <sub>2</sub> O <sub>3</sub> Ceramics from Wood for Filter Applications. Journal of the American Ceramic Society, 2008, 91, 852-859.	3.8	34
98	Pre-ceramic Paper-Derived Ceramics. Journal of the American Ceramic Society, 2008, 91, 3477-3492.	3.8	94
99	Biomorphous Metal-Ceramic Composites with High Coefficient of Friction. Advanced Engineering Materials, 2007, 9, 892-897.	3.5	3
100	Bioinspired Rattan-Derived SiC/Zeolite Monoliths: Preparation and Characterisation. Microporous and Mesoporous Materials, 2006, 90, 162-174.	4.4	53
101	Stress distribution in biomorphous SiC-ceramics under radial tensile loading. Journal of the European Ceramic Society, 2005, 25, 1015-1024.	5.7	14
102	Fabrication of Hydroxyapatite Ceramics with Interconnected Macro Porosity. Key Engineering Materials, 2005, 284-286, 277-280.	0.4	2
103	LZSA glass ceramic foams prepared by replication process. Advances in Applied Ceramics, 2005, 104, 22-29.	1.1	41
104	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
105	Deformation Behavior of 2D Composite Cellular Lattices of Ceramic Building Blocks and Epoxy Resin. Advanced Engineering Materials, 0, , 2100536.	3.5	2
106	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