

Nicholas Boechler

List of Publications by Year in descending order

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32
papers

1,661
citations

516710

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395702

33
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docs citations

36
times ranked

1572
citing authors

#	ARTICLE	IF	CITATIONS
1	Microscale Concert Hall Acoustics to Produce Uniform Ultrasound Stimulation for Targeted Sonogenetics in hTRPA1-transfected Cells. <i>Advanced NanoBiomed Research</i> , 2022, 2, .	3.6	6
2	Temperature-controlled spatiotemporally modulated phononic crystal for achieving nonreciprocal acoustic wave propagation. <i>Journal of the Acoustical Society of America</i> , 2022, 151, 3669-3675.	1.1	3
3	The role of polymer mechanochemistry in responsive materials and additive manufacturing. <i>Nature Reviews Materials</i> , 2021, 6, 84-98.	48.7	151
4	Growing phenotype-controlled phononic materials from plant cells scaffolds. <i>Applied Materials Today</i> , 2021, 22, 100934.	4.3	2
5	Mechanoactivation of Color and Autonomous Shape Change in 3D-Printed Ionic Polymer Networks. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 19263-19270.	8.0	15
6	Topology optimization of nonlinear periodically microstructured materials for tailored homogenized constitutive properties. <i>Composite Structures</i> , 2021, 266, 113729.	5.8	15
7	Reduced strain mechanochemical activation onset in microstructured materials. <i>Polymer Chemistry</i> , 2020, 11, 1122-1126.	3.9	8
8	Mechano-Activated Objects with Multidirectional Shape Morphing Programmed via 3D Printing. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2504-2508.	4.4	20
9	Nanocontact Tailoring via Microlensing Enables Giant Postfabrication Mesoscopic Tuning in a Self-Assembled Ultrasonic Metamaterial. <i>Advanced Functional Materials</i> , 2020, 30, 1909217.	14.9	6
10	Longitudinal eigenvibration of multilayer colloidal crystals and the effect of nanoscale contact bridges. <i>Nanoscale</i> , 2019, 11, 5655-5665.	5.6	11
11	Wrinkles Riding Waves in Soft Layered Materials. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801609.	3.7	6
12	Wrinkles: Wrinkles Riding Waves in Soft Layered Materials (<i>Adv. Mater. Interfaces</i> 1/2019). <i>Advanced Materials Interfaces</i> , 2019, 6, 1970004.	3.7	1
13	Contact-based and spheroidal vibrational modes of a hexagonal monolayer of microspheres on a substrate. <i>Wave Motion</i> , 2018, 76, 122-133.	2.0	8
14	Additive manufacturing with a flex activated mechanophore for nondestructive assessment of mechanochemical reactivity in complex object geometries. <i>Polymer</i> , 2018, 152, 4-8.	3.8	36
15	GST-on-silicon hybrid nanophotonic integrated circuits: a non-volatile quasi-continuously reprogrammable platform. <i>Optical Materials Express</i> , 2018, 8, 1551.	3.0	166
16	Mechanochromic Stretchable Electronics. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 29918-29924.	8.0	72
17	Discrete breathers in a mass-in-mass chain with Hertzian local resonators. <i>Physical Review E</i> , 2017, 95, 022904.	2.1	16
18	Vibrational dynamics of a two-dimensional microgranular crystal. <i>Physical Review B</i> , 2017, 96, .	3.2	17

#	ARTICLE	IF	CITATIONS
19	Acoustic wave propagation in disordered microscale granular media under compression. <i>Granular Matter</i> , 2017, 19, 1.	2.2	8
20	Shear to longitudinal mode conversion via second harmonic generation in a two-dimensional microscale granular crystal. <i>Wave Motion</i> , 2017, 68, 22-30.	2.0	18
21	Spatial Laplace transform for complex wavenumber recovery and its application to the analysis of attenuation in acoustic systems. <i>Journal of Applied Physics</i> , 2016, 120, .	2.5	23
22	Resonant attenuation of surface acoustic waves by a disordered monolayer of microspheres. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	15
23	Complex Contact-Based Dynamics of Microsphere Monolayers Revealed by Resonant Attenuation of Surface Acoustic Waves. <i>Physical Review Letters</i> , 2016, 116, 198001.	7.8	46
24	Laser-Induced Spallation of Microsphere Monolayers. <i>Langmuir</i> , 2016, 32, 7730-7734.	3.5	4
25	Dynamics of a monolayer of microspheres on an elastic substrate. <i>Physical Review B</i> , 2015, 92, .	3.2	27
26	Laser-induced transient grating setup with continuously tunable period. <i>Review of Scientific Instruments</i> , 2015, 86, 123101.	1.3	23
27	A self-assembled metamaterial for Lamb waves. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	40
28	Interaction of a Contact Resonance of Microspheres with Surface Acoustic Waves. <i>Physical Review Letters</i> , 2013, 111, 036103.	7.8	116
29	Nonlinear Periodic Phononic Structures and Granular Crystals. <i>Springer Series in Solid-state Sciences</i> , 2013, , 217-251.	0.3	34
30	Hysteresis loops and multi-stability: From periodic orbits to chaotic dynamics (and back) in diatomic granular crystals. <i>Europhysics Letters</i> , 2013, 101, 44003.	2.0	27
31	Bifurcation-based acoustic switching and rectification. <i>Nature Materials</i> , 2011, 10, 665-668.	27.5	496
32	Discrete Breathers in One-Dimensional Diatomic Granular Crystals. <i>Physical Review Letters</i> , 2010, 104, 244302.	7.8	224