Ruobing Bai

List of Publications by Citations

25 papers	1,496 citations	14 h-index	25 g-index
25 ext. papers	1,973 ext. citations	9 avg, IF	5.55 L-index

#	Paper	IF	Citations
25	Highly Stretchable and Tough Hydrogels below Water Freezing Temperature. *Advanced Materials*, **2018**, 30, e1801541	24	267
24	Hydrogel Adhesion: A Supramolecular Synergy of Chemistry, Topology, and Mechanics. *Advanced Functional Materials*, **2020**, 30, 1901693	15.6	255
23	Topological Adhesion of Wet Materials. *Advanced Materials*, **2018**, 30, e1800671	24	173
22	Bioinspired Hydrogel Interferometer for Adaptive Coloration and Chemical Sensing. *Advanced Materials*, **2018**, 30, e1800468	24	149
21	Fatigue fracture of tough hydrogels. *Extreme Mechanics Letters*, **2017**, 15, 91-96	3.9	136
20	Fatigue of hydrogels. *European Journal of Mechanics, A/Solids*, **2019**, 74, 337-370	3.7	104
19	Fatigue Fracture of Self-Recovery Hydrogels. *ACS Macro Letters*, **2018**, 7, 312-317	6.6	79
18	Fatigue fracture of nearly elastic hydrogels. *Soft Matter*, **2018**, 14, 3563-3571	3.6	67
17	Hydrogel Interferometry for Ultrasensitive and Highly Selective Chemical Detection. *Advanced Materials*, **2018**, 30, e1804916	24	64
16	Design Molecular Topology for Wet-Dry Adhesion. *ACS Applied Materials & Interfaces*, **2019**, 11, 24802-24814	9.5	34
15	Flaw-Insensitive Hydrogels under Static and Cyclic Loads. *Macromolecular Rapid Communications*, **2019**, 40, e1800883	4.8	27
14	Stress fields in hollow core–shell spherical electrodes of lithium ion batteries. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2014**, 470, 20140299	2.4	21
13	Tearing a hydrogel of complex rheology. *Journal of the Mechanics and Physics of Solids*, **2019**, 125, 749-761	5	19
12	Swaying gel: chemo-mechanical self-oscillation based on dynamic buckling. *Matter*, **2021**, 4, 1029-1041	12.7	17
11	Molecular Staples for Tough and Stretchable Adhesion in Integrated Soft Materials. *Advanced Healthcare Materials*, **2019**, 8, e1900810	10.1	13
10	Photomechanical coupling in photoactive nematic elastomers. *Journal of the Mechanics and Physics of Solids*, **2020**, 144, 104115	5	12
9	Topological adhesion II. Stretchable adhesion. *Extreme Mechanics Letters*, **2020**, 40, 100891	3.9	11

8	A Phenomenological Model for Shakedown of Tough Hydrogels Under Cyclic Loads. *Journal of Applied Mechanics, Transactions ASME*, **2018**, 85,	2.7	8
7	Optomechanics of Soft Materials. *Journal of Applied Mechanics, Transactions ASME*, **2015**, 82,	2.7	7
6	Localized Deformation in Plastic Liquids on Elastomers. *Journal of Applied Mechanics, Transactions ASME*, **2017**, 84,	2.7	5
5	Hydrogels: Hydrogel Interferometry for Ultrasensitive and Highly Selective Chemical Detection (Adv. Mater. 46/2018). *Advanced Materials*, **2018**, 30, 1870352	24	3
4	Collective behavior in the kinetics and equilibrium of solid-state photoreaction. *Extreme Mechanics Letters*, **2021**, 43, 101160	3.9	2
3	Fatigue of amorphous hydrogels with dynamic covalent bonds. *Extreme Mechanics Letters*, **2022**, 53, 101679	3.9	2
2	Photochemical-induced phase transitions in photoactive semicrystalline polymers. *Physical Review E*, **2021**, 103, 033003	2.4	1
1	Temperature-modulated photomechanical actuation of photoactive liquid crystal elastomers. *Extreme Mechanics Letters*, **2022**, 51, 101614	3.9	0