

# Majid Minary-Jolandan

## List of Publications by Year in descending order

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75  
papers

3,278  
citations

172457

29  
h-index

149698

56  
g-index

77  
all docs

77  
docs citations

77  
times ranked

5050  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybridizing harmony search algorithm with sequential quadratic programming for engineering optimization problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 3080-3091.	6.6	275
2	A Review of Mechanical and Electromechanical Properties of Piezoelectric Nanowires. <i>Advanced Materials</i> , 2012, 24, 4656-4675.	21.0	259
3	Large-Area Deposition of MoS <sub>2</sub> by Pulsed Laser Deposition with <i>In Situ</i> Thickness Control. <i>ACS Nano</i> , 2016, 10, 6054-6061.	14.6	202
4	Moisture Sensitive Smart Yarns and Textiles from Self-Balanced Silk Fiber Muscles. <i>Advanced Functional Materials</i> , 2019, 29, 1808241.	14.9	200
5	Nanoscale characterization of isolated individual type I collagen fibrils: polarization and piezoelectricity. <i>Nanotechnology</i> , 2009, 20, 085706.	2.6	175
6	Nanomechanical Heterogeneity in the Gap and Overlap Regions of Type I Collagen Fibrils with Implications for Bone Heterogeneity. <i>Biomacromolecules</i> , 2009, 10, 2565-2570.	5.4	126
7	Uncovering Nanoscale Electromechanical Heterogeneity in the Subfibrillar Structure of Collagen Fibrils Responsible for the Piezoelectricity of Bone. <i>ACS Nano</i> , 2009, 3, 1859-1863.	14.6	126
8	Individual GaN Nanowires Exhibit Strong Piezoelectricity in 3D. <i>Nano Letters</i> , 2012, 12, 970-976.	9.1	125
9	High-Performance Coils and Yarns of Polymeric Piezoelectric Nanofibers. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 5358-5366.	8.0	113
10	Nanofountain Probe Electroporation (NFP-E) of Single Cells. <i>Nano Letters</i> , 2013, 13, 2448-2457.	9.1	102
11	Nano/microscale pyroelectric energy harvesting: challenges and opportunities. <i>International Journal of Smart and Nano Materials</i> , 2013, 4, 229-245.	4.2	89
12	Alginate-Collagen Fibril Composite Hydrogel. <i>Materials</i> , 2015, 8, 799-814.	2.9	82
13	Nanofibrous Smart Fabrics from Twisted Yarns of Electrospun Piezopolymer. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 24220-24229.	8.0	81
14	Thermo-electromechanical Behavior of Piezoelectric Nanofibers. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 2540-2551.	8.0	73
15	Localized Pulsed Electrodeposition Process for Three-Dimensional Printing of Nanotwinned Metallic Nanostructures. <i>Nano Letters</i> , 2018, 18, 208-214.	9.1	68
16	Biocompatible Collagen Films as Substrates for Flexible Implantable Electronics. <i>Advanced Electronic Materials</i> , 2015, 1, 1500154.	5.1	61
17	Microscale 3D Printing of Nanotwinned Copper. <i>Advanced Materials</i> , 2018, 30, 1705107.	21.0	55
18	Molecular Mechanism of Polarization and Piezoelectric Effect in Super-Twisted Collagen. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 929-936.	5.2	53

#	ARTICLE	IF	CITATIONS
19	Fabrication of MoS <sub>2</sub> thin film transistors via selective-area solution deposition methods. <i>Journal of Materials Chemistry C</i> , 2015, 3, 3842-3847.	5.5	43
20	Multi-physics simulation of metal printing at micro/nanoscale using meniscus-confined electrodeposition: Effect of nozzle speed and diameter. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	41
21	Reversible radial deformation up to the complete flattening of carbon nanotubes in nanoindentation. <i>Journal of Applied Physics</i> , 2008, 103, .	2.5	40
22	Influence of Lithium Additives in Small Molecule Light-Emitting Electrochemical Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 16776-16782.	8.0	39
23	Multi-physics simulation of metal printing at micro/nanoscale using meniscus-confined electrodeposition: Effect of environmental humidity. <i>Journal of Applied Physics</i> , 2017, 121, .	2.5	39
24	Direct-Write Printing Copper–Nickel (Cu/Ni) Alloy with Controlled Composition from a Single Electrolyte Using Co-Electrodeposition. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 18683-18691.	8.0	38
25	Correlation of annealing temperature, morphology, and electro-mechanical properties of electrospun piezoelectric nanofibers. <i>Polymer</i> , 2017, 127, 192-202.	3.8	35
26	Controlling the wettability and adhesion of carbon fibers with polymer interfaces via grafted nanofibers. <i>Composites Science and Technology</i> , 2015, 117, 130-138.	7.8	34
27	Toward Control of Microstructure in Microscale Additive Manufacturing of Copper Using Localized Electrodeposition. <i>Advanced Engineering Materials</i> , 2019, 21, 1800946.	3.5	34
28	Additive-Free and Support-Free 3D Printing of Thermosetting Polymers with Isotropic Mechanical Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 5529-5538.	8.0	33
29	Shear piezoelectricity in bone at the nanoscale. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	32
30	Intrinsically high- <i>Q</i> dynamic AFM imaging in liquid with a significantly extended needle tip. <i>Nanotechnology</i> , 2012, 23, 235704.	2.6	32
31	Effect of thermomechanical post-processing on chain orientation and crystallinity of electrospun P(VDF-TrFE) nanofibers. <i>Polymer</i> , 2017, 118, 223-235.	3.8	30
32	A Hybrid Process for Printing Pure and High Conductivity Nanocrystalline Copper and Nickel on Flexible Polymeric Substrates. <i>Scientific Reports</i> , 2019, 9, 19032.	3.3	29
33	Low-Cost Manufacturing of Metal–Ceramic Composites through Electrodeposition of Metal into Ceramic Scaffold. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 4364-4372.	8.0	28
34	Nanoindentation of <i>Pseudomonas aeruginosa</i> bacterial biofilm using atomic force microscopy. <i>Materials Research Express</i> , 2014, 1, 045411.	1.6	27
35	Evolution of electromechanical and morphological properties of piezoelectric thin films with thermomechanical processing. <i>Polymer</i> , 2016, 106, 62-71.	3.8	27
36	Bioinspired Nacre–Like Ceramic with Nickel Inclusions Fabricated by Electroless Plating and Spark Plasma Sintering. <i>Advanced Engineering Materials</i> , 2018, 20, 1700782.	3.5	26

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37	Scalable, hydrophobic and highly-stretchable poly(isocyanurate-urethane) aerogels. RSC Advances, 2018, 8, 21214-21223.	3.6	26
38	Three-Dimensional Printing of Ceramics through "Carving" a Gel and "Filling in" the Precursor Polymer. ACS Applied Materials & Interfaces, 2020, 12, 31984-31991.	8.0	25
39	Interconnect Fabrication by Electroless Plating on 3D-Printed Electroplated Patterns. ACS Applied Materials & Interfaces, 2021, 13, 19271-19281.	8.0	23
40	Nonlinear Viscoelastic Behavior of Human Knee Ligaments Subjected to Complex Loading Histories. Annals of Biomedical Engineering, 2006, 34, 1008-1018.	2.5	21
41	Dynamics of the nanoneedle probe in trolling mode AFM. Nanotechnology, 2015, 26, 205702.	2.6	18
42	Nanomechanical imaging of soft samples in liquid using atomic force microscopy. Journal of Applied Physics, 2013, 114, .	2.5	17
43	Alumina-Nickel Composite Processed via Co-Assembly Using Freeze-Casting and Spark Plasma Sintering. Advanced Engineering Materials, 2019, 21, 1801103.	3.5	17
44	Designing bioinspired brick-and-mortar composites using machine learning and statistical learning. Communications Materials, 2020, 1, .	6.9	17
45	Strong piezoelectricity in individual GaN nanowires. MRS Communications, 2011, 1, 45-48.	1.8	15
46	Low-Temperature Deposition of Layered SnSe <sub>2</sub> for Heterojunction Diodes. Advanced Materials Interfaces, 2018, 5, 1800128.	3.7	15
47	A microscale additive manufacturing approach for in situ nanomechanics. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 767, 138441.	5.6	15
48	Microfluidic Parallel Patterning and Cellular Delivery of Molecules with a Nanofountain Probe. Journal of the Association for Laboratory Automation, 2014, 19, 100-109.	2.8	14
49	A simulation study on the significant nanomechanical heterogeneous properties of collagen. Biomechanics and Modeling in Mechanobiology, 2015, 14, 445-457.	2.8	13
50	Additive printing of pure nanocrystalline nickel thin films using room environment electroplating. Nanotechnology, 2020, 31, 055301.	2.6	13
51	Thermal stability of microscale additively manufactured copper using pulsed electrodeposition. Materials Letters, 2020, 280, 128584.	2.6	12
52	Computational Nanomechanics of Noncollagenous Interfibrillar Interface in Bone. ACS Applied Materials & Interfaces, 2020, 12, 25363-25373.	8.0	12
53	Solution-based Ag-doped ZnSe thin films with tunable electrical and optical properties. Journal of Materials Chemistry C, 2015, 3, 9781-9788.	5.5	11
54	Clustering of hydroxyapatite on a super-twisted collagen microfibril under mechanical tension. Journal of Materials Chemistry B, 2017, 5, 2235-2244.	5.8	11

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55	Bioinspired Multifunctional Ceramic Platelet-Reinforced Piezoelectric Polymer Composite. <i>Advanced Engineering Materials</i> , 2017, 19, 1600570.	3.5	11
56	Mechanisms of Localized Pulsed Electrodeposition (L-PED) for Microscale 3D Printing of Nanotwinned Metals. <i>Journal of the Electrochemical Society</i> , 2019, 166, D354-D358.	2.9	11
57	Tensile fatigue behavior of single carbon nanotube yarns. <i>Journal of Materials Science</i> , 2018, 53, 11426-11432.	3.7	10
58	Growth parameter enhancement for MoS <sub>2</sub> thin films synthesized by pulsed laser deposition. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2016, 13, 848-854.	0.8	9
59	Evaluation of the Effect of Thermal Oxidation and Moisture on the Interfacial Shear Strength of Unidirectional IM7/BMI Composite by Fiber Push-in Nanoindentation. <i>Experimental Mechanics</i> , 2018, 58, 111-123.	2.0	9
60	Lamellar Ceramic Semicrystalline-Polymer Composite Fabricated by Freeze Casting. <i>Advanced Engineering Materials</i> , 2017, 19, 1700214.	3.5	8
61	Bioelectronics on Mammalian Collagen. <i>Advanced Electronic Materials</i> , 2020, 6, 2000391.	5.1	8
62	Energy harvesting with peptide nanotube-graphene oxide flexible substrates prepared with electric field and wettability assisted self-assembly. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	7
63	Processing and 3D printing of SiCN polymer-derived ceramics. <i>International Journal of Applied Ceramic Technology</i> , 2022, 19, 939-948.	2.1	7
64	Diffusion limited current in very high aspect ratio Pt needle electrodes. <i>Applied Physics Letters</i> , 2011, 99, 053113.	3.3	6
65	Deformation Mechanisms of Two-Part-Natural Adhesive in Bone Interfibrillar Nano-Interfaces. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 5916-5924.	5.2	6
66	An improved in situ measurement of offset phase shift towards quantitative damping-measurement with AFM. <i>Ultramicroscopy</i> , 2008, 108, 821-825.	1.9	4
67	Enhancement of the Electrical Properties of DNA Molecular Wires through Incorporation of Perylenediimide DNA Base Surrogates. <i>ChemPlusChem</i> , 2019, 84, 416-419.	2.8	3
68	Molecular dynamics modeling of a nanomaterials-water surface interaction. <i>Journal of Applied Physics</i> , 2016, 119, 164302.	2.5	2
69	Bioerosion of Synthetic Sling Explants. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 2598-2605.	5.2	2
70	Mechanical and Electromechanical Characterization of One-Dimensional Piezoelectric Nanomaterials. <i>Nanomedicine and Nanotoxicology</i> , 2012, , 63-91.	0.2	2
71	Computational analysis of copper electrodeposition into a porous preform. <i>AIP Advances</i> , 2022, 12, .	1.3	2
72	Flexible Electronics: Biocompatible Collagen Films as Substrates for Flexible Implantable Electronics ( <i>Adv. Electron. Mater.</i> 9/2015). <i>Advanced Electronic Materials</i> , 2015, 1, n/a-n/a.	5.1	1

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73	Measurement of Temperature-Dependent Young's Modulus at a Strain Rate for a Molding Compound by Nanoindentation. <i>Experimental Mechanics</i> , 2017, 57, 1135-1147.	2.0	1
74	Printing of Microscale Nanotwinned Copper Interconnections Using Localized Pulsed Electrodeposition (L-PED). , 2018, , .		1
75	Multiphysics simulation of microscale copper printing by confined electrodeposition using a nozzle array. <i>Journal of Applied Physics</i> , 2022, 131, 055303.	2.5	0