Alfonso H W Ngan

List of Publications by Year
in descending order

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52 papers	1,296 citations	361045 20 h-index	360668 35 g-index
52 all docs	52 docs citations	52 times ranked	1526 citing authors

#	Article	IF	Citations
1	Influence of hydrogen behaviors on tensile properties of equiatomic FeCrNiMnCo high-entropy alloy. Journal of Alloys and Compounds, 2022, 892, 162260.	2.8	16
2	Robotic Hair with Rich Sensation and Piloerection Functionalities Biomimicked by Stimuliâ€Responsive Materials. Advanced Materials Technologies, 2022, 7, .	3.0	2
3	Strengthening CrFeCoNiMn0.75Cu0.25 high entropy alloy via laser shock peening. International Journal of Plasticity, 2022, 154, 103296.	4.1	60
4	Effects of hydrogen charging and deformation on tensile properties of a multi-component alloy for nuclear applications. Tungsten, 2022, 4, 212-218.	2.0	7
5	Novel Stimuliâ€Responsive Turbostratic Oxides/Hydroxides for Materialâ€Driven Robots. Advanced Intelligent Systems, 2021, 3, 2000215.	3.3	5
6	Temperature-dependent deformation behavior of a CuZr-based bulk metallic glass composite. Journal of Alloys and Compounds, 2021, 858, 158368.	2.8	10
7	Creating robotic intelligence using multistimuli-responsive cobalt-doped manganese oxide. NPG Asia Materials, 2021, 13, .	3.8	4
8	Printed miniature robotic actuators with curvature-induced stiffness control inspired by the insect wing. Bioinspiration and Biomimetics, 2021, 16, 046018.	1.5	3
9	Chemo-mechanical instability of light-induced humidity responsive bilayered actuators. Extreme Mechanics Letters, 2020, 39, 100801.	2.0	9
10	Visible-Light-Driven, Nickel-Doped Cobalt Oxides/Hydroxides Actuators with High Stability. ACS Applied Materials & Interfaces, 2020, 12, 30557-30564.	4.0	10
11	Relation Between Yield Stress and Peierls Stress. Physica Status Solidi (B): Basic Research, 2019, 256, 1900107.	0.7	5
12	A Highâ€Performing, Visibleâ€Lightâ€Driven Actuating Material Responsive to Ultralow Light Intensities. Advanced Materials Technologies, 2019, 4, 1900746.	3.0	16
13	A universal law for metallurgical effects on acoustoplasticity. Materialia, 2019, 5, 100214.	1.3	13
14	Electronâ€Beam Induced Water Removal, Phase Change, and Crystallization of Anodicâ€Electrodeposited Turbostratic Nickel Hydroxideâ€Oxyhydroxide. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800623.	0.8	9
15	Light-stimulated actuators based on nickel hydroxide-oxyhydroxide. Science Robotics, 2018, 3, .	9.9	75
16	Effect of Cold Rolling Parameters on Bond Strength of Ti Particle Embedded Al Strips. Transactions of the Indian Institute of Metals, 2018, 71, 2497-2504.	0.7	4
17	The weakest size of precipitated alloys in the micro-regime: The case of duralumin. Journal of Materials Research, 2017, 32, 2003-2013.	1.2	15
18	Multi-scale, multi-physics modeling of electrochemical actuation of Ni nanohoneycomb in water. Computational Materials Science, 2017, 128, 109-120.	1.4	2

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19	Dependence of corrosion properties of AISI 304L stainless steel on the austenite grain size. International Journal of Materials Research, 2017, 108, 552-559.	0.1	11
20	Preferential sensing and response to microenvironment stiffness of human dermal fibroblast cultured on protein micropatterns fabricated by 3D multiphoton biofabrication. Scientific Reports, 2017, 7, 12402.	1.6	10
21	Multiphoton Fabrication of Fibronectin-Functionalized Protein Micropatterns: Stiffness-Induced Maturation of Cellâ€“Matrix Adhesions in Human Mesenchymal Stem Cells. ACS Applied Materials & Interfaces, 2017, 9, 29469-29480.	4.0	13
22	Multiphoton photochemical crosslinking-based fabrication of protein micropatterns with controllable mechanical properties for single cell traction force measurements. Scientific Reports, 2016, 6, 20063.	1.6	26
23	An Unusual Extrusion Texture in Mgâ€“Gdâ€“Yâ€“Zr Alloys. Advanced Engineering Materials, 2016, 18, 1044-1049.	1.6	61
24	Fast and Reversible Actuation of Metallic Muscles Composed of Nickel Nanowireâ€Forest. Advanced Materials, 2016, 28, 5315-5321.	11.1	30
25	Reversible Electrochemical Actuation of Metallic Nanohoneycombs Induced by Pseudocapacitive Redox Processes. ACS Nano, 2015, 9, 3984-3995.	7.3	43
26	Mesenchymal Stem Cells Reduce Intervertebral Disc Fibrosis and Facilitate Repair. Stem Cells, 2014, 32, 2164-2177.	1.4	84
27	Crystal plasticity of Cu nanocrystals during collision. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 585, 326-334.	2.6	9
28	The crystal structures of sintered copper nanoparticles: A molecular dynamics study. International Journal of Plasticity, 2013, 47, 65-79.	4.1	40
29	Small-scale plasticity critically needs a new mechanics description. Journal of the Mechanical Behavior of Materials, 2013, 22, 3-10.	0.7	0
30	Nanostructure of collagen fibrils in human nucleus pulposus and its correlation with macroscale tissue mechanics. Journal of Orthopaedic Research, 2010, 28, 497-502.	1.2	40
31	A Microplate Compression Method for Elastic Modulus Measurement of Soft and Viscoelastic Collagen Microspheres. Annals of Biomedical Engineering, 2008, 36, 1254-1267.	1.3	27
32	Nanoindentation Measurement of Mechanical Properties of Soft Solid Covered By a Thin Liquid Film. Soft Materials, 2007, 5, 169-181.	0.8	20
33	Creep of micron-sized aluminium columns. Philosophical Magazine Letters, 2007, 87, 967-977.	0.5	41
34	An improved method for the measurement of mechanical properties of bone by nanoindentation. Journal of Materials Science: Materials in Medicine, 2007, 18, 1875-1881.	1.7	41
35	Creep of micron-sized Ni3Al columns. Scripta Materialia, 2006, 54, 7-12.	2.6	23
36	Probabilistic nature of the nucleation of dislocations in an applied stress field. Scripta Materialia, 2006, 54, 589-593.	2.6	16

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37	TEM measurement of nanoindentation plastic zones in Ni3Al. Scripta Materialia, 2006, 55, 557-560.	2.6	15
38	Delayed plasticity in nanoindentation of annealed crystals. Philosophical Magazine, 2006, 86, 1287-1304.	0.7	10
39	Molecular dynamics study on compressive yield strength in Ni3Al micro-pillars. Philosophical Magazine Letters, 2006, 86, 355-365.	0.5	39
40	Time-dependent incipient plasticity in Ni3Al as observed in nanoindentation. Journal of Materials Research, 2005, 20, 489-495.	1.2	44
41	Statistical distribution of contact forces in packings of deformable spheres. Mechanics of Materials, 2005, 37, 493-506.	1.7	19
42	Correcting power-law viscoelastic effects in elastic modulus measurement using depth-sensing indentation. International Journal of Solids and Structures, 2005, 42, 1831-1846.	1.3	148
43	Indentation size effects on the strain rate sensitivity of nanocrystalline Ni?25at.%Al thin films. Scripta Materialia, 2005, 52, 827-831.	2.6	33
44	Full-scale atomistic simulations of dislocations in Ni crystal by embedded-atom method. Philosophical Magazine, 2005, 85, 1917-1929.	0.7	7
45	On the distribution of elastic forces in disordered structures and materials. I. Computer simulation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2005, 461, 433-458.	1.0	14
46	Investigation of Viscoelastic Properties of Amorphous Selenium near Glass Transition Using Depthâ€Sensing Indentation. Soft Materials, 2004, 2, 125-144.	0.8	16
47	Initial Contact Behavior of Nanograined Ni-25at.%Al Film During Nanoindentation. Materials Research Society Symposia Proceedings, 2004, 841, R8.7.1.	0.1	0
48	Nano-alloys Synthesized by Controlled Crystallization from Supercooled Atomic Clusters of Elements. Journal of Materials Research, 2004, 19, 780-785.	1.2	11
49	Atomistic simulations of Paidarâ€“Popeâ€“Vitek lock formation in Ni3Al. Computational Materials Science, 2004, 29, 259-269.	1.4	25
50	Atomistic modeling of mechanical behavior. Acta Materialia, 2003, 51, 5711-5742.	3.8	115
51	On Probabilistic Distribution of Forces in Granular Materials: A Statistical Mechanics Approach. Materials Research Society Symposia Proceedings, 2002, 759, 1.	0.1	0
52	An Assessment of the Mechanical Strengths of Aluminide-based Thin Coatings. Materials Research Society Symposia Proceedings, 2000, 649, 8111.	0.1	0