Ju-young Kim

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3878030/publications.pdf

Version: 2024-02-01

93 papers	4,873 citations	94433 37 h-index	95266 68 g-index
94 all docs	94 docs citations	94 times ranked	6890 citing authors

#	Article	IF	Citations
1	Enhanced biaxial stretchability of wrinkled SiO2 thin films for stretchable encapsulation. Scripta Materialia, 2022, 207, 114280.	5.2	2
2	Colorful Transparent Silicon Photovoltaics with Unprecedented Flexibility. Advanced Functional Materials, 2022, 32, 2110435.	14.9	6
3	Ligament size effect in creep of nanoporous gold. International Journal of Plasticity, 2022, 150, 103192.	8.8	8
4	Highly Elastic and Corrosion-Resistive Metallic Glass Thin Films for Flexible Encapsulation. ACS Applied Materials & Interfaces, 2022, 14, 5578-5585.	8.0	9
5	Grain boundary-assisted resistance to crack propagation in nanoporous gold with fine grains. Scripta Materialia, 2022, 215, 114708.	5.2	7
6	Highly impermeable and flexible silica encapsulation films synthesized by solâ€”gel process. Nano Research, 2022, 15, 7476-7483.	10.4	3
7	Highly Efficient Self-Encapsulated Flexible Semitransparent Perovskite Solar Cells via Bifacial Cation Exchange. ACS Applied Materials & Interfaces, 2022, 14, 33297-33305.	8.0	11
8	Compressive Properties of Nanoporous Gold Through Nanoindentation: An Analytical Approach Based on the Expanding Cavity Model. Metals and Materials International, 2021, 27, 3787-3795.	3.4	2
9	Biodegradable Metallic Glass for Stretchable Transient Electronics. Advanced Science, 2021, 8, 2004029.	11.2	21
10	Direct 2D-to-3D transformation of pen drawings. Science Advances, 2021, 7, .	10.3	25
11	Solutionâ€Processed Stretchable Ag₂S Semiconductor Thin Films for Wearable Selfâ€Powered Nonvolatile Memory. Advanced Materials, 2021, 33, e2100066.	21.0	30
12	Cu2Se-based thermoelectric cellular architectures for efficient and durable power generation. Nature Communications, 2021, 12, 3550.	12.8	41
13	Memory Devices: Solutionâ€Processed Stretchable Ag₂S Semiconductor Thin Films for Wearable Selfâ€Powered Nonvolatile Memory (Adv. Mater. 23/2021). Advanced Materials, 2021, 33, 2170181.	21.0	0
14	Amorphous Alumina Film Robust under Cyclic Deformation: a Highly Impermeable and a Highly Flexible Encapsulation Material. ACS Applied Materials & Interfaces, 2021, 13, 46894-46901.	8.0	11
15	Surface residual stress in amorphous SiO2 insulating layer on Si substrate near a Cu through-silicon via (TSV) investigated by nanoindentation. Materials Science in Semiconductor Processing, 2021, 135, 106153.	4.0	9
16	Self-Healing of Nanoporous Gold Under Ambient Conditions. Nano Letters, 2020, 20, 6706-6711.	9.1	5
17	Tension-compression asymmetry in plasticity of nanoporous gold. Acta Materialia, 2020, 199, 340-351.	7.9	13
18	Ultralow-dielectric-constant amorphous boron nitride. Nature, 2020, 582, 511-514.	27.8	173

#	Article	IF	Citations
19	3D Multiscale Gradient Pores Impregnated with Ag Nanowires for Simultaneous Pressure and Bending Detection with Enhanced Linear Sensitivity. Advanced Materials Technologies, 2020, 5, 1901041.	5.8	5
20	Instantaneous and Repeatable Self-Healing of Fully Metallic Electrodes at Ambient Conditions. ACS Applied Materials & Interfaces, 2019, 11, 41497-41505.	8.0	31
21	Highly Efficient Flexible Perovskite Light-Emitting Diodes Using the Modified PEDOT:PSS Hole Transport Layer and Polymerâ€“Silver Nanowire Composite Electrode. ACS Applied Materials & Interfaces, 2019, 11, 39274-39282.	8.0	24
22	High-resolution, reconfigurable printing of liquid metals with three-dimensional structures. Science Advances, 2019, 5, eaaw2844.	10.3	215
23	Nanomechanical Approach for Flexibility of Organicâ€“Inorganic Hybrid Perovskite Solar Cells. Nano Letters, 2019, 19, 3707-3715.	9.1	42
24	Incipient plasticity and fully plastic contact behavior of copper coated with a graphene layer. APL Materials, 2019, 7, .	5.1	11
25	Flexibility of Semitransparent Perovskite Light-Emitting Diodes Investigated by Tensile Properties of the Perovskite Layer. Nano Letters, 2019, 19, 971-976.	9.1	37
26	Flaw-Containing Alumina Hollow Nanostructures Have Ultrahigh Fracture Strength To Be Incorporated into High-Efficiency GaN Light-Emitting Diodes. Nano Letters, 2018, 18, 1323-1330.	9.1	9
27	Co-diffusion of boron and phosphorus for ultra-thin crystalline silicon solar cells. Journal Physics D: Applied Physics, 2018, 51, 275101.	2.8	3
28	Growth of Nanosized Single Crystals for Efficient Perovskite Light-Emitting Diodes. ACS Nano, 2018, 12, 3417-3423.	14.6	109
29	Grain Boundary Conformed Volumetric Mesh Generation from a Three-Dimensional Voxellated Polycrystalline Microstructure. Metals and Materials International, 2018, 24, 845-859.	3.4	5
30	Indentation size effect for spherical nanoindentation on nanoporous gold. Scripta Materialia, 2018, 143, 10-14.	5.2	24
31	Highly Flexible and Efficient Allâ€Polymer Solar Cells with Highâ€Viscosity Processing Polymer Additive toward Potential of Stretchable Devices. Angewandte Chemie, 2018, 130, 13461-13466.	2.0	108
32	Highly Flexible and Efficient Allâ€Polymer Solar Cells with Highâ€Viscosity Processing Polymer Additive toward Potential of Stretchable Devices. Angewandte Chemie - International Edition, 2018, 57, 13277-13282.	13.8	166
33	Microstructural effect on time-dependent plasticity of nanoporous gold. International Journal of Plasticity, 2018, 109, 108-120.	8.8	13
34	Twinned nanoporous gold with enhanced tensile strength. Acta Materialia, 2018, 155, 253-261.	7.9	30
35	Evaluation of tensile stress-strain curve of electroplated copper film by characterizing indentation size effect with a single nanoindentation. Metals and Materials International, 2017, 23, 76-81.	3.4	15
36	Directionality of residual stress evaluated by instrumented indentation testing using wedge indenter. Metals and Materials International, 2017, 23, 465-472.	3.4	16

#	Article	IF	Citations
37	High Dielectric Performances of Flexible and Transparent Cellulose Hybrid Films Controlled by Multidimensional Metal Nanostructures. Advanced Materials, 2017, 29, 1700538.	21.0	106
38	Self-similarity in the structure of coarsened nanoporous gold. Scripta Materialia, 2017, 137, 46-49.	5.2	34
39	Robust nanogenerators based on graft copolymers via control of dielectrics for remarkable output power enhancement. Science Advances, 2017, 3, e1602902.	10.3	204
40	Integrated arrays of air-dielectric graphene transistors as transparent active-matrix pressure sensors for wide pressure ranges. Nature Communications, 2017, 8, 14950.	12.8	167
41	Indentation size effect in nanoporous gold. Acta Materialia, 2017, 138, 52-60.	7.9	36
42	Research on flexible display at Ulsan National Institute of Science and Technology. Npj Flexible Electronics, 2017, 1, .	10.7	59
43	Nanolaminate of metallic glass and graphene with enhanced elastic modulus, strength, and ductility in tension. Scripta Materialia, 2017, 139, 63-66.	5.2	21
44	Critical bending radius of thin single-crystalline silicon with dome and pyramid surface texturing. Scripta Materialia, 2017, 140, 1-4.	5.2	17
45	Wall-thickness-dependent strength of nanotubular ZnO. Scientific Reports, 2017, 7, 4327.	3.3	6
46	Study on ductile mode machining of single-crystal silicon by mechanical machining. International Journal of Machine Tools and Manufacture, 2017, 113, 1-9.	13.4	41
47	A siloxane-incorporated copolymer as an in situ cross-linkable binder for high performance silicon anodes in Li-ion batteries. Nanoscale, 2016, 8, 9245-9253.	5.6	47
48	Fully-integrated, bezel-less transistor arrays using reversibly foldable interconnects and stretchable origami substrates. Nanoscale, 2016, 8, 9504-9510.	5.6	65
49	Photo-patternable and transparent films using cellulose nanofibers for stretchable origami electronics. NPG Asia Materials, 2016, 8, e299-e299.	7.9	83
50	Graphene Coatings as Barrier Layers to Prevent the Water-Induced Corrosion of Silicate Glass. ACS Nano, 2016, 10, 9794-9800.	14.6	58
51	Enhancement of Mechanical Hardness in SnO_xN_y with a Dense High-Pressure Cubic Phase of SnO₂. Chemistry of Materials, 2016, 28, 7051-7057.	6.7	23
52	Solutionâ€Processable Glass Liâ€Li₄SnS₄ Superionic Conductors for Allâ€Solidâ€State Liâ€Ion Batteries. Advanced Materials, 2016, 28, 1874-1883.	21.0	265
53	Amphiphilic Graft Copolymers as a Versatile Binder for Various Electrodes of Highâ€Performance Lithiumâ€Ion Batteries. Small, 2016, 12, 3119-3127.	10.0	48
54	Weakened Flexural Strength of Nanocrystalline Nanoporous Gold by Grain Refinement. Nano Letters, 2016, 16, 2497-2502.	9.1	44

#	Article	IF	Citations
55	Modeling and experimental verification for non-equibiaxial residual stress evaluated by Knoop indentations. Metals and Materials International, 2016, 22, 12-19.	3.4	17
56	Dependency of Electrochemical Performances of Silicon Lithium-Ion Batteries on Glycosidic Linkages of Polysaccharide Binders. ACS Applied Materials & Interfaces, 2016, 8, 4042-4047.	8.0	56
57	Stretchable, Transparent Electrodes as Wearable Heaters Using Nanotrough Networks of Metallic Glasses with Superior Mechanical Properties and Thermal Stability. Nano Letters, 2016, 16, 471-478.	9.1	265
58	Surface residual stress in soda-lime glass evaluated using instrumented spherical indentation testing. Journal of Materials Science, 2015, 50, 7752-7759.	3.7	9
59	Estimation of principal directions of Bi-axial residual stress using instrumented Knoop indentation testing. Metals and Materials International, 2015, 21, 850-856.	3.4	17
60	Breathing silicon anodes for durable high-power operations. Scientific Reports, 2015, 5, 14433.	3.3	51
61	Amineâ€Based Interfacial Molecules for Inverted Polymerâ€Based Optoelectronic Devices. Advanced Materials, 2015, 27, 3553-3559.	21.0	77
62	Highly efficient flexible optoelectronic devices using metal nanowire-conducting polymer composite transparent electrode. Electronic Materials Letters, 2015, 11, 906-914.	2.2	38
63	Calibration of Nanoindentation Systems Based on the Reference Hardness of a Fused Silica. Journal of Korean Institute of Metals and Materials, 2015, 53, 162-168.	1.0	3
64	Assessment of surface-local strains from remnant microindents on a Zr-based metallic glass. Metals and Materials International, 2014, 20, 439-443.	3.4	9
65	Constitutive equations optimized for determining strengths of metallic alloys. Mechanics of Materials, 2014, 73, 51-57.	3.2	16
66	Contact morphology and constitutive equation in evaluating tensile properties of austenitic stainless steels through instrumented spherical indentation. Journal of Materials Science, 2013, 48, 232-239.	3.7	15
67	Microstructure evolution in nanoporous gold thin films made from sputter-deposited precursors. Scripta Materialia, 2013, 69, 720-723.	5.2	26
68	A photo-cross-linkable polymeric binder for silicon anodes in lithium ion batteries. RSC Advances, 2013, 3, 12625.	3.6	53
69	Suppression of Catastrophic Failure in Metallic Glassâ€“Polyisoprene Nanolaminate Containing Nanopillars. Advanced Functional Materials, 2012, 22, 1972-1980.	14.9	46
70	Determining effective radius and frame compliance in spherical nanoindentation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 58-62.	5.6	10
71	Nanolaminates Utilizing Sizeâ€Dependent Homogeneous Plasticity of Metallic Glasses. Advanced Functional Materials, 2011, 21, 4550-4554.	14.9	143
72	Tensile and compressive behavior of tungsten, molybdenum, tantalum and niobium at the nanoscale. Acta Materialia, 2010, 58, 2355-2363.	7.9	299

#	Article	IF	Citations
73	Conventional Vickers and true instrumented indentation hardness determined by instrumented indentation tests. Journal of Materials Research, 2010, 25, 337-343.	2.6	49
74	Effective indenter radius and frame compliance in instrumented indentation testing using a spherical indenter. Journal of Materials Research, 2009, 24, 2965-2973.	2.6	20
75	Tensile and compressive behavior of gold and molybdenum single crystals at the nano-scale. Acta Materialia, 2009, 57, 5245-5253.	7.9	217
76	Effects of two gaps and paramagnetic pair breaking on the upper critical field of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>SmFeAsO</mml:mtext></mml:mrow><mml:mrow><mml:mn>0.85</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> Physical Review B, 2009, 80, .	3.2	88
77	Evaluating plastic flow properties by characterizing indentation size effect using a sharp indenter. Acta Materialia, 2008, 56, 3338-3343.	7.9	46
78	Fundamental Differences in Mechanical Behavior between Two Types of Crystals at the Nanoscale. Physical Review Letters, 2008, 100, 155502.	7.8	283
79	Multiaxial deformation characteristic of a Zr-based bulk metallic glass: Variations of the plastic constraint factor underneath a spherical indenter. Journal of Materials Research, 2007, 22, 2895-2901.	2.6	1
80	Rate-dependent inhomogeneous-to-homogeneous transition of plastic flows during nanoindentation of bulk metallic glasses: Fact or artifact?. Applied Physics Letters, 2007, 90, 211906.	3.3	35
81	Influence of Indenter Geometry on the Deformation Behavior of Zr₆₀Cu₃₀Al₁₀ Bulk Metallic Glass during Nanoindentation. Materials Transactions, 2007, 48, 1765-1769.	1.2	17
82	Influence of surface-roughness on indentation size effect. Acta Materialia, 2007, 55, 3555-3562.	7.9	134
83	Optimum definition of true strain beneath a spherical indenter for deriving indentation flow curves. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 419, 196-201.	5.6	38
84	Determination of tensile properties by instrumented indentation technique: Representative stress and strain approach. Surface and Coatings Technology, 2006, 201, 4278-4283.	4.8	87
85	Mechanical characterization of nano-structured materials using nanoindentation. Metals and Materials International, 2006, 12, 219-223.	3.4	7
86	Surface roughness effect in instrumented indentation: A simple contact depth model and its verification. Journal of Materials Research, 2006, 21, 2975-2978.	2.6	65
87	On the Characterization of Thin Film-only Mechanical Property Based on the Indentation Image Analysis. Materials Research Society Symposia Proceedings, 2006, 976, 1.	0.1	0
88	â€œGraftingâ€Fromâ€•Polymerization inside a Polyelectrolyte Hollowâ€Capsule Microreactor. Angewandte Chemie - International Edition, 2005, 44, 1096-1101.	13.8	52
89	â€œGraftingâ€Fromâ€•Polymerization inside a Polyelectrolyte Hollowâ€Capsule Microreactor. Angewandte Chemie, 2005, 117, 1120-1125.	2.0	4
90	Depth-Dependent Hardness Characterization by Nanoindentation using a Berkovich Indenter with a Rounded Tip. Materials Research Society Symposia Proceedings, 2005, 875, 1.	0.1	1

#	Article	IF	Citations
91	Stress-strain curves of flip-chip solder balls based on finite-element modeling of thermal displacements measured by electronic speckle pattern interferometry. Journal of Electronic Materials, 2003, 32, 1322-1329.	2.2	5
92	Determining Stress-strain Curves for Thin Films by Experimental/Computational Nanoindentation. Materials Research Society Symposia Proceedings, 2003, 795, 106.	0.1	5
93	Preparation of Gold-Polypyrrole Core-shell Nanoparticles. Molecular Crystals and Liquid Crystals, 2001, 371, 127-130.	0.3	3