Pil-Ryung Cha

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5681160/publications.pdf

Version: 2024-02-01

49 papers	1,592 citations	430874 18 h-index	289244 40 g-index
49 all docs	49 docs citations	49 times ranked	2702 citing authors

#	Article	IF	Citations
1	Long-term clinical study and multiscale analysis of in vivo biodegradation mechanism of Mg alloy. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 716-721.	7.1	337
2	Superplastic Deformation of Defect-Free Au Nanowires via Coherent Twin Propagation. Nano Letters, 2011, 11, 3499-3502.	9.1	189
3	Enhanced Endurance Organolead Halide Perovskite Resistive Switching Memories Operable under an Extremely Low Bending Radius. ACS Applied Materials & Interfaces, 2017, 9, 30764-30771.	8.0	135
4	Atomic Layer Deposition of Dielectrics on Graphene Using Reversibly Physisorbed Ozone. ACS Nano, 2012, 6, 2722-2730.	14.6	115
5	Abnormal grain growth induced by sub-boundary-enhanced solid-state wetting: Analysis by phase-field model simulations. Acta Materialia, 2009, 57, 838-845.	7.9	74
6	Monte Carlo simulations of the structure of Pt-based bimetallic nanoparticles. Acta Materialia, 2012, 60, 4908-4916.	7.9	71
7	Molecular dynamics simulation of single asperity contact. Acta Materialia, 2004, 52, 3983-3996.	7.9	65
8	Numerical Analysis of the Influences of Operational Parameters on the Fluid Flow and Meniscus Shape in Slab Caster with EMBR.. ISIJ International, 1997, 37, 659-667.	1.4	54
9	A phase field model for the solute drag on moving grain boundaries. Acta Materialia, 2002, 50, 3817-3829.	7.9	52
10	Structural Modification of Self-Organized Nanoporous Niobium Oxide via Hydrogen Treatment. Chemistry of Materials, 2016, 28, 1453-1461.	6.7	50
11	Phase-field model for multicomponent alloy solidification. Journal of Crystal Growth, 2005, 274, 281-293.	1.5	36
12	Catalytic activity for oxygen reduction reaction on platinum-based coreâ€“shell nanoparticles: all-electron density functional theory. Nanoscale, 2015, 7, 15830-15839.	5.6	34
13	The modification of microstructure to improve the biodegradation and mechanical properties of a biodegradable Mg alloy. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 20, 54-60.	3.1	28
14	First-Principles Study of the Interfaces between Fe and Transition Metal Carbides. Journal of Physical Chemistry C, 2013, 117, 187-193.	3.1	27
15	Dislocation driven spiral and non-spiral growth in layered chalcogenides. Nanoscale, 2018, 10, 15023-15034.	5.6	24
16	Effect of hydrogen derived from oxygen source on low-temperature ferroelectric TiN/Hf0.5Zr0.5O2/TiN capacitors. Applied Physics Letters, 2019, 115, .	3.3	21
17	3D Numerical Analysis on Electromagnetic and Fluid Dynamic Pheonomena in a Soft Contact Electromagnetic Slab Caster.. ISIJ International, 1998, 38, 403-410.	1.4	20
18	The n- and p-type thermoelectric response of a semiconducting Co-based quaternary Heusler alloy: a density functional approach. Journal of Materials Chemistry C, 2019, 7, 7664-7671.	5.5	20

#	Article	IF	Citations
19	Analysis of Transformation Plasticity in Steel Using a Finite Element Method Coupled with a Phase Field Model. PLoS ONE, 2012, 7, e35987.	2.5	18
20	Characterization of plasma-sprayed Y2O3 coating and investigation of its visual aspect change. Surface and Coatings Technology, 2011, 205, 3341-3346.	4.8	16
21	Effect of micro-elasticity on grain growth and texture evolution: A phase field grain growth simulation. Computational Materials Science, 2012, 56, 58-68.	3.0	16
22	A phase field model for phase transformation in an elastically stressed binary alloy. Modelling and Simulation in Materials Science and Engineering, 2005, 13, 299-319.	2.0	15
23	Size-dependent transition of the deformation behavior of Au nanowires. Nano Research, 2015, 8, 941-947.	10.4	15
24	Numerical Analysis on Cold Crucible Using 3D H-.PHI. Method and Finite Volume Method with Non-staggered BFC Grid System.. ISIJ International, 1996, 36, 1157-1165.	1.4	14
25	Phase Field Study on the Austenite/Ferrite Transition in Low Carbon Steel. Materials and Manufacturing Processes, 2010, 25, 106-110.	4.7	14
26	Nano Si embedded SiO x -Nb 2 O 5 -C composite as reversible lithium storage materials. Journal of Alloys and Compounds, 2017, 699, 351-357.	5.5	14
27	In situ observation of the grain growth of the copper electrodeposits for ultralarge scale integration. Applied Physics Letters, 2006, 89, 161924.	3.3	13
28	Effects of mobile charged defects on currentâ€“voltage behavior in resistive switching memories based on organicâ€“inorganic hybrid perovskite. Applied Physics Letters, 2018, 113, .	3.3	13
29	Effects of alloying elements on the stability and mechanical properties of Fe3Al from first-principles calculations. Computational Materials Science, 2018, 146, 303-309.	3.0	11
30	A numerical analysis of fluid flow, heat transfer and solidification in the bending-type square billet continuous casting process. Metals and Materials International, 2002, 8, 111-117.	3.4	9
31	Capillarity and electromigration effects on asperity contact evolution in microelectromechanical systems switches. Journal of Applied Physics, 2006, 100, 054502.	2.5	8
32	Electric field induced charge migration and formation of conducting filament during resistive switching in electrochemical metallization (ECM) memory cells. Journal of Applied Physics, 2020, 128, .	2.5	8
33	The effect of a uniform direct current magnetic field on the stability of a stratified liquid flux/molten steel system. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2000, 31, 317-326.	2.1	6
34	A phase field model for electromigration-induced surface evolution. Metals and Materials International, 2003, 9, 279-286.	3.4	6
35	First principles study of Si etching by CHF3 plasma source. Applied Surface Science, 2011, 257, 8767-8771.	6.1	6
36	Phase-field model with relaxation of the partition coefficient. Computational Materials Science, 2021, 188, 110184.	3.0	6

#	Article	IF	Citations
37	A carrier transport model in the high-resistance state of lead-methylamine iodide-based resistive memory devices. AIP Advances, 2017, 7, 085207.	1.3	5
38	Mechanism for self-formation of Al matrix composites using nitridation-induced manufacturing processes. Journal of Materials Research and Technology, 2022, 18, 2331-2342.	5.8	5
39	Size Effects on the Stabilization and Growth of Tetragonal ZrO₂ Crystallites in a Nanotubular Structure. Journal of Nanoscience and Nanotechnology, 2012, 12, 3177-3180.	0.9	4
40	A new method of constructing physics-based nano-crystalline atomic structures for molecular dynamics simulation. Computational Materials Science, 2010, 49, 634-640.	3.0	3
41	Reassessing the atomic size effect on glass forming ability: Effect of atomic size difference on thermodynamics and kinetics. Intermetallics, 2016, 69, 123-127.	3.9	3
42	Plausible carrier transport model in organic-inorganic hybrid perovskite resistive memory devices. AIP Advances, 2018, 8, .	1.3	3
43	Factors that control stability, variability, and reliability issues of endurance cycle in ReRAM devices: A phase field study. Journal of Applied Physics, 2022, 131, .	2.5	3
44	Numerically optimal design for the system with coupled complex transport phenomena-application to the Submerged EntryNozzle in continuous slab caster. Metals and Materials International, 2002, 8, 119-127.	3.4	2
45	Influence of epitaxial strain on the terrace and inter-layer diffusions in metal epitaxy. Applied Surface Science, 2006, 253, 2776-2784.	6.1	2
46	Origin of Ferromagnetism and Long-range Interactions of Cu in GaN:Chemical Bonding and Electronegativity Approaches. Journal of the Korean Physical Society, 2009, 55, 1013-1017.	0.7	2
47	Nanocapillarity-induced elasticity in nanotubular structures. Electronic Materials Letters, 2014, 10, 525-528.	2.2	0
48	A Finite Element Model for Stochastic Set Operation in Phase-Change Memory. , 2019, , .		0
49	Numerical Analysis of Sapphire Single Crystal Growth Using the Vertical-Horizontal Gradient Freezing (VHGF) Method. Journal of Korean Institute of Metals and Materials, 2015, 53, 28-34.	1.0	0