Guimin Lu

List of Publications by Year
in descending order

64 papers	1,048 citations	430874 18 h-index	454955 30 g-index
64 all docs	64 docs citations	64 times ranked	816 citing authors

#	Article	IF	Citations
1	Molecular dynamics simulations of lanthanum chloride by deep learning potential. Computational Materials Science, 2022, 210, 111014.	3.0	13
2	Molecular dynamics simulation of molten strontium chloride based on deep potential. Journal of Molecular Liquids, 2022, 348, 118380.	4.9	7
3	Deep learning-driven molecular dynamics simulations of molten carbonates: 1. Local structure and transport properties of molten Li2CO3-Na2CO3 system. Ionics, 2022, 28, 1231-1248.	2.4	12
4	Investigation on the local structure and properties of molten Li2CO3-K2CO3 binary salts by machine learning potentials. Journal of Molecular Liquids, 2022, 356, 118979.	4.9	7
5	Investigation of the Redox Potential of Lithium and Its Dissolution in the LiClâ€“KCl Eutectic. Journal of the Electrochemical Society, 2022, 169, 056517.	2.9	2
6	Molecular dynamics simulations on AlCl3-LiCl molten salt with deep learning potential. Computational Materials Science, 2022, 210, 111494.	3.0	7
7	Machine Learning Accelerates Molten Salt Simulations: Thermal Conductivity of MgCl₂â€NaCl Eutectic. Advanced Theory and Simulations, 2022, 5, .	2.8	7
8	Evaluation of the local structure and electrochemical behavior in the LiCl-KCl-SmCl3 melt. Journal of Molecular Liquids, 2022, 363, 119818.	4.9	5
9	Static and dynamic ionic structure of molten CaCl2 via first-principles molecular dynamics simulations. Ionics, 2021, 27, 771-779.	2.4	14
10	Theoretical prediction on the redox potentials of rare-earth ions by deep potentials. Ionics, 2021, 27, 2079-2088.	2.4	8
11	Investigation on electrochemical behaviors of MnCl2 impurity in LiCl-KCl melts. Ionics, 2021, 27, 2979-2988.	2.4	2
12	Investigation on electrochemical behaviors of MgCl2 impurity in LiCl-KCl melt. Journal of Electroanalytical Chemistry, 2021, 886, 115131.	3.8	4
13	Investigation of the Behavior and Mechanism of Action of Ether-Based Polycarboxylate Superplasticizers Adsorption on Large Bibulous Stone Powder. Materials, 2021, 14, 2736.	2.9	3
14	Theoretical prediction on the local structure and transport properties of molten alkali chlorides by deep potentials. Journal of Materials Science and Technology, 2021, 75, 78-85.	10.7	31
15	Effect of New Hardening Accelerator on the Strength of Segment Concrete. Journal Wuhan University of Technology, Materials Science Edition, 2021, 36, 387-391.	1.0	3
16	Investigation on electrochemical behaviors of Ni(II) impurity in LiCl-KCl melt. Separation and Purification Technology, 2021, 268, 118354.	7.9	11
17	Local structure elucidation and properties prediction on KClâ€“CaCl2 molten salt: A deep potential molecular dynamics study. Solar Energy Materials and Solar Cells, 2021, 232, 111346.	6.2	26
18	Machine-Learning-Driven Simulations on Microstructure and Thermophysical Properties of MgCl₂â€“KCl Eutectic. ACS Applied Materials & Interfaces, 2021, 13, 4034-4042.	8.0	44

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19	Theoretical study on the structure transition under the thermal decomposition of MgCl2Â·H2O. Journal of Thermal Analysis and Calorimetry, 2020, 139, 3735-3744.	3.6	3
20	First-principles molecular dynamics simulations on the local structure and thermo-kinetic properties of molten magnesium chloride. Journal of Molecular Liquids, 2020, 298, 112063.	4.9	40
21	Composition-dependent microstructure evolution in liquid MgCl2-KCl: A first-principles molecular dynamics study. Journal of Molecular Liquids, 2020, 309, 113131.	4.9	27
22	Molecular Dynamics Simulations of Molten Magnesium Chloride Using Machineâ€Learningâ€Based Deep Potential. Advanced Theory and Simulations, 2020, 3, 2000180.	2.8	24
23	Influence of $$NO_2^ - $$ on the Microscopic Structure and Physical Properties of the Binary Nitrate Salts: a Molecular Dynamics Simulation Study. Journal of Thermal Science, 2020, 29, 464-476.	1.9	2
24	Molecular dynamics simulation on local structure and thermodynamic properties of molten ternary chlorides systems for thermal energy storage. Computational Materials Science, 2019, 170, 109051.	3.0	20
25	Molecular simulation of the structure and physical properties of alkali nitrate salts for thermal energy storage. Renewable Energy, 2019, 136, 955-967.	8.9	29
26	Effects of Fe(III) on MgCl2 electrolysis and its cathodic processes on W electrodes. Ionics, 2019, 25, 3945-3952.	2.4	3
27	Electrochemical behavior of magnesium ions in chloride melt. Ionics, 2019, 25, 2719-2727.	2.4	6
28	Insight into the viscosity enhancement ability of Ca(NO3)2 on the binary molten nitrate salt: A molecular dynamics simulation study. Chemical Engineering Journal, 2019, 377, 120029.	12.7	25
29	The influence of NaCl concentration on the (LiCl-KCl) eutectic system and temperature dependence of the ternary system. Journal of Molecular Liquids, 2018, 253, 96-112.	4.9	20
30	Recycle-Friendly Aluminum Alloy Sheets for Automotive Applications Based on Hemming. Automotive Innovation, 2018, 1, 70-75.	5.1	4
31	Influence of Impurity SO₄^{2â”} on the Thermal Performance of Molten Nitrates Used for Thermal Energy Storage. Energy Technology, 2018, 6, 2065-2073.	3.8	6
32	Interaction between a hollowâ€cone spray and the coâ€axial swirling stratified flow in a novel spray pyrolysis furnace. Canadian Journal of Chemical Engineering, 2018, 96, 1079-1088.	1.7	6
33	Investigation of Microscopic Structure and Ion Dynamics in Liquid Li(Na, K)EutecticCl Systems by Molecular Dynamics Simulation. Applied Sciences (Switzerland), 2018, 8, 1874.	2.5	7
34	Investigation of the local structures and transport properties of quaternary molten alkali chloride systems by MD simulations for liquid metal batteries. Journal of Applied Electrochemistry, 2018, 48, 1175-1187.	2.9	8
35	Molecular dynamics study of the transport properties and local structures of molten alkali metal chlorides. Part III. Four binary systems LiCl-RbCl, LiCl-CsCl, NaCl-RbCl and NaCl-CsCl. Journal of Molecular Liquids, 2017, 238, 236-247.	4.9	19
36	Effect of erucic acid on the rheological and surface properties of coal tar pitch. International Journal of Adhesion and Adhesives, 2017, 75, 108-113.	2.9	1

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37	The Two-Phase High-Speed Stream at the Centerline of a Hollow-Cone Spray Produced by a Pressure-Swirl Nozzle. Industrial & Engineering Chemistry Research, 2017, 56, 359-367.	3.7	6
38	CFD aided design of integrated spray pyrolysis furnace for liquid ore exploitation. Chemical Engineering and Processing: Process Intensification, 2017, 122, 245-257.	3.6	6
39	Analysis for effects of electrolyte level on energy consumption in magnesium electrolysis by finite element method. Canadian Journal of Chemical Engineering, 2017, 95, 648-655.	1.7	4
40	Synergistic catalytic effect of light rare earth element and other additives on the degree of graphitization and properties of graphite. Journal of Materials Science, 2017, 52, 663-673.	3.7	23
41	Optimization of mixing parameters for a cold model system by CFD for aluminum matrix composites synthesis process. Canadian Journal of Chemical Engineering, 2017, 95, 467-474.	1.7	2
42	Effect of Fe-Content on the Mechanical Properties of Recycled Al Alloys during Hot Compression. Metals, 2017, 7, 262.	2.3	12
43	Density functional theory study on the thermodynamics and mechanism of carbon dioxide capture by CaO and CaO regeneration. RSC Advances, 2016, 6, 39460-39468.	3.6	35
44	Effects and Mechanisms of Binders on the Properities of Magnesium Oxide Pellets. Refractories and Industrial Ceramics, 2016, 57, 199-206.	0.6	5
45	Catalytic Graphitization of Coal-Based Carbon Materials with Light Rare Earth Elements. Langmuir, 2016, 32, 8583-8592.	3.5	35
46	The Development of Lightweight Commercial Vehicle Wheels Using Microalloying Steel. , 2015, , 597-604.		0
47	An Innovative Two-Stage Reheating Process for Wrought Aluminum Alloy During Thixoforming. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 4191-4201.	2.2	22
48	Modeling of strontium chloride hexahydrate growth during unseeded batch cooling crystallization by two-dimensional population balance equation. CrystEngComm, 2015, 17, 9394-9403.	2.6	6
49	Effects of operational and structural parameters on cell voltage of industrial magnesium electrolysis cells. Frontiers of Chemical Science and Engineering, 2015, 9, 522-531.	4.4	0
50	Molecular dynamics study of the transport properties and local structures of molten binary systems (Li, Na)Cl, (Li, K)Cl and (Na, K)Cl. Journal of Molecular Liquids, 2015, 209, 498-507.	4.9	47
51	Control of Crystal Morphology and Size of Calcium Sulfate Whiskers in Aqueous HCl Solutions by Additives: Experimental and Molecular Dynamics Simulation Studies. Industrial & Engineering Chemistry Research, 2015, 54, 4781-4787.	3.7	53
52	Simulation and evaluation of the performance and feasibility of twoâ€stage industrial hydrocyclones for CaSO₄ removal in potassium chloride production. Canadian Journal of Chemical Engineering, 2015, 93, 736-746.	1.7	0
53	Designing and optimizing a stirring system for a cold model of a lithium electrolysis cell based on CFD simulations and optical experiments. RSC Advances, 2015, 5, 84503-84516.	3.6	4
54	Catalytic effect of praseodymium oxide additive on the microstructure and electrical property of graphite anode. Carbon, 2015, 95, 940-948.	10.3	16

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55	Metastable zone width of SrCl₂Â·6H₂O during cooling crystallization. Crystal Research and Technology, 2014, 49, 78-83.	1.3	13
56	Preparation of strontium chloride hexahydrate by batchâ€cooling crystallization: Control of crystal size and morphology. Crystal Research and Technology, 2014, 49, 878-887.	1.3	4
57	Molecular Dynamics Simulations of the Local Structures and Transport Coefficients of Molten Alkali Chlorides. Journal of Physical Chemistry B, 2014, 118, 10196-10206.	2.6	53
58	Scaleâ€up design of a 300â€‰kA magnesium electrolysis cell based on thermoâ€electric mathematical models. Canadian Journal of Chemical Engineering, 2014, 92, 1197-1206.	1.7	11
59	Viscosity estimation of semi-solid alloys based on thermal simulation compression tests. International Journal of Materials Research, 2013, 104, .	0.3	11
60	Simulation Analysis of Multiphase Flow and Performance of Hydrocyclones at Different Atmospheric Pressures. Industrial & Engineering Chemistry Research, 2012, 51, 443-453.	3.7	21
61	Catalytic graphitization of carbon/carbon composites by lanthanum oxide. Journal of Rare Earths, 2012, 30, 128-132.	4.8	24
62	Coupled Thermoelectric Model and Effects of Current Fluctuation on Thermal Balance in Magnesium Electrolysis Cell. Energy & Fuels, 2011, 25, 2655-2663.	5.1	9
63	Thermal decomposition mechanisms of MgCl2Â·6H2O and MgCl2Â·H2O. Journal of Analytical and Applied Pyrolysis, 2011, 91, 159-164.	5.5	170
64	Magnesium electrolyzer structural optimization based on energy balance. , 2011, , .		0