Takahiro Nomura

List of Publications by Year
in descending order

64 papers	2,887 citations	172457 29 h-index	168389 53 g-index
64 all docs	64 docs citations	64 times ranked	1965 citing authors

#	Article	IF	Citations
1	Impregnation of porous material with phase change material for thermal energy storage. Materials Chemistry and Physics, 2009, 115, 846-850.	4.0	255
2	Thermal conductivity enhancement of erythritol as PCM by using graphite and nickel particles. Applied Thermal Engineering, 2013, 61, 825-828.	6.0	178
3	Technology of Latent Heat Storage for High Temperature Application: A Review. ISIJ International, 2010, 50, 1229-1239.	1.4	166
4	Microencapsulation of Metal-based Phase Change Material for High-temperature Thermal Energy Storage. Scientific Reports, 2015, 5, 9117.	3.3	154
5	Macro-encapsulation of metallic phase change material using cylindrical-type ceramic containers for high-temperature thermal energy storage. Applied Energy, 2016, 170, 324-328.	10.1	150
6	Microencapsulated phase change materials with high heat capacity and high cyclic durability for high-temperature thermal energy storage and transportation. Applied Energy, 2017, 188, 9-18.	10.1	148
7	Phase change composite based on porous nickel and erythritol. Applied Thermal Engineering, 2012, 40, 373-377.	6.0	137
8	High thermal conductivity phase change composite with percolating carbon fiber network. Applied Energy, 2015, 154, 678-685.	10.1	133
9	Waste heat transportation system, using phase change material (PCM) from steelworks to chemical plant. Resources, Conservation and Recycling, 2010, 54, 1000-1006.	10.8	116
10	Thermal analysis of Alâ€"Si alloys as high-temperature phase-change material and their corrosion properties with ceramic materials. Applied Energy, 2016, 163, 1-8.	10.1	106
11	Cotton-derived carbon sponge as support for form-stabilized composite phase change materials with enhanced thermal conductivity. Solar Energy Materials and Solar Cells, 2019, 192, 8-15.	6.2	106
12	Vertically aligned carbon fibers as supporting scaffolds for phase change composites with anisotropic thermal conductivity and good shape stability. Journal of Materials Chemistry A, 2019, 7, 4934-4940.	10.3	86
13	Heat storage in direct-contact heat exchanger with phase change material. Applied Thermal Engineering, 2013, 50, 26-34.	6.0	72
14	Fabrication of paraffin@SiO2 shape-stabilized composite phase change material via chemical precipitation method for building energy conservation. Energy and Buildings, 2015, 108, 373-380.	6.7	68
15	Development of a microencapsulated Alâ€"Si phase change material with high-temperature thermal stability and durability over 3000 cycles. Journal of Materials Chemistry A, 2018, 6, 18143-18153.	10.3	63
16	Heat release performance of direct-contact heat exchanger withÂerythritol as phase change material. Applied Thermal Engineering, 2013, 61, 28-35.	6.0	60
17	A high-thermal-conductivity, high-durability phase-change composite using a carbon fibre sheet as a supporting matrix. Applied Energy, 2020, 264, 114685.	10.1	60
18	Synthesis of Al-25â€‰wt% Si@Al2O3@Cu microcapsules as phase change materials for high temperature thermal energy storage. Solar Energy Materials and Solar Cells, 2019, 191, 141-147.	6.2	57

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19	Improvement in thermal endurance of D-mannitol as phase-change material by impregnation into nanosized pores. Materials Chemistry and Physics, 2014, 146, 253-260.	4.0	55
20	High thermal conductivity phase change composite with a metal-stabilized carbon-fiber network. Applied Energy, 2016, 179, 1-6.	10.1	51
21	Microencapsulation of eutectic and hyper-eutectic Al-Si alloy as phase change materials for high-temperature thermal energy storage. Solar Energy Materials and Solar Cells, 2018, 187, 255-262.	6.2	45
22	Al/Al2O3 core/shell microencapsulated phase change material for high-temperature applications. Solar Energy Materials and Solar Cells, 2019, 193, 281-286.	6.2	45
23	Estimation of thermal endurance of multicomponent sugar alcohols asÂphase change materials. Applied Thermal Engineering, 2015, 75, 481-486.	6.0	42
24	Microencapsulation of Zn-Al alloy as a new phase change material for middle-high-temperature thermal energy storage applications. Applied Energy, 2020, 276, 115487.	10.1	42
25	Performance analysis of heat storage of direct-contact heat exchanger with phase-change material. Applied Thermal Engineering, 2013, 58, 108-113.	6.0	39
26	Thermal conductivity enhancement of erythritol phase change material with percolated aluminum filler. Materials Chemistry and Physics, 2019, 229, 87-91.	4.0	39
27	Fabrication of heat storage pellets composed of microencapsulated phase change material for high-temperature applications. Applied Energy, 2020, 265, 114673.	10.1	37
28	Performance analysis of packed bed latent heat storage system for high-temperature thermal energy storage using pellets composed of micro-encapsulated phase change material. Energy, 2022, 238, 121746.	8.8	34
29	Modified preparation of Al2O3@Al-Si microencapsulated phase change material for high-temperature thermal storage with high durability over 3000 cycles. Solar Energy Materials and Solar Cells, 2019, 200, 109925.	6.2	32
30	Anisotropically enhanced heat transfer properties of phase change material reinforced by graphene-wrapped carbon fibers. Solar Energy Materials and Solar Cells, 2020, 206, 110280.	6.2	27
31	High-temperature latent heat storage technology to utilize exergy of solar heat and industrial exhaust heat. International Journal of Energy Research, 2017, 41, 240-251.	4.5	26
32	Feasibility of an Advanced Waste Heat Transportation System Using High-temperature Phase Change Material (PCM). ISIJ International, 2010, 50, 1326-1332.	1.4	21
33	Gaâ€based microencapsulated phase change material for lowâ€temperature thermal management applications. Energy Storage, 2020, 2, e177.	4.3	20
34	Improvement on Heat Release Performance of Direct-contact Heat Exchanger Using Phase Change Material for Recovery of Low Temperature Exhaust Heat. ISIJ International, 2015, 55, 441-447.	1.4	17
35	Solution combustion synthesis of Brownmillerite-type Ca2AlMnO5 as an oxygen storage material. Journal of Alloys and Compounds, 2015, 646, 900-905.	5.5	17
36	Optimization of the Dehydration Temperature of Goethite to Control Pore Morphology. ISIJ International, 2016, 56, 1598-1605.	1.4	15

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37	Co-appearance of superconductivity and ferromagnetism in a Ca2RuO4 nanofilm crystal. Scientific Reports, 2020, 10, 3462.	3.3	15
38	Modified preparation of Al2O3@Al microencapsulated phase change material with high durability for high-temperature thermal energy storage over 650ÂÂ°C. Solar Energy Materials and Solar Cells, 2022, 237, 111540.	6.2	13
39	Atomic and Local Electronic Structures of Ca₂AlMnO_{5+Î´} as an Oxygen Storage Material. Chemistry of Materials, 2017, 29, 648-655.	6.7	12
40	Catalyst-loaded micro-encapsulated phase change material for thermal control of exothermic reaction. Scientific Reports, 2021, 11, 7539.	3.3	11
41	Ultrafast Iron-Making Method: Carbon Combustion Synthesis from Carbon-Infiltrated Goethite Ore. ACS Omega, 2018, 3, 6151-6157.	3.5	10
42	Steam Reforming of Tar Using Low-Grade Iron Ore for Hydrogen Production. Energy & Fuels, 2019, 33, 1296-1301.	5.1	10
43	Utilization of Low Grade Iron Ore (FeOOH) and Biomass Through Integrated Pyrolysis-tar Decomposition (CVI process) in Ironmaking Industry: Exergy Analysis and its Application. ISIJ International, 2015, 55, 428-435.	1.4	9
44	Rapid oxygen storage and release with Brownmillerite-structured Ca2AlMnO5. Journal of Alloys and Compounds, 2021, 851, 156817.	5.5	9
45	Fabrication of Heat Storage Pellets Consisting of a Metallic Latent Heat Storage Microcapsule and an Al₂O₃ Matrix. ISIJ International, 2020, 60, 2152-2156.	1.4	9
46	Limonitic Laterite Ore as a Catalyst for the Dry Reforming of Methane. Energy & Fuels, 2016, 30, 8457-8462.	5.1	8
47	Twin formation in hematite during dehydration of goethite. Physics and Chemistry of Minerals, 2016, 43, 749-757.	0.8	8
48	Development of Novel Microencapsulated Hybrid Latent/Chemical Heat Storage Material. ACS Sustainable Chemistry and Engineering, 2020, 8, 14700-14710.	6.7	8
49	Combustion synthesis of AlN doped with carbon and oxygen. Journal of the American Ceramic Society, 2019, 102, 524-532.	3.8	7
50	Sr-Doped Ca₂AlMnO_{5Â+ÂÎ´} for Energy-Saving Oxygen Separation Process. ACS Sustainable Chemistry and Engineering, 2021, 9, 9317-9326.	6.7	7
51	Tar Decomposition over a Porous Iron Ore Catalyst: Experiment and Kinetic Analysis. Energy & Fuels, 2018, 32, 7046-7053.	5.1	6
52	Low-Temperature Synthesis of TiC from Carbon-Infiltrated, Nano-porous TiO2. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 1958-1964.	2.1	5
53	Sr substitution effects on atomic and local electronic structure of Ca₂AlMnO_{5+Î´}. Surface and Interface Analysis, 2019, 51, 65-69.	1.8	4
54	Reaction Heat Control for Steam Reforming of Ethanol with Ni-supported Latent Heat Storage Grain. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2020, 106, 534-541.	0.4	3

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55	Ironmaking System Including Coproduction of Carbon-Loaded Iron Oxide and Reformed Coke Oven Gas by Chemical Vapor Infiltration Process. Journal of Sustainable Metallurgy, 2015, 1, 115-125.	2.3	2
56	High Anisotropic Thermal Conductivity, Long Durability Form-Stable Phase Change Composite Enhanced by a Carbon Fiber Network Structure. Crystals, 2021, 11, 230.	2.2	2
57	Faster Generation of Nanoporous Hematite Ore through Dehydration of Goethite under Vacuum Conditions. ISIJ International, 2021, 61, 493-497.	1.4	2
58	Exergy Analysis of Large-Scale Hydrogen Transportation using Several Types of Hydrogen Carriers. Kagaku Kogaku Ronbunshu, 2017, 43, 63-73.	0.3	2
59	Functional surface modification of Al-Si@Al2O3 microencapsulated phase change material. Journal of Energy Storage, 2022, 52, 104919.	8.1	2
60	Effect of Applied Voltage on the Current Density of CO₂ Electrolysis in High Temperature. ISIJ International, 2015, 55, 392-398.	1.4	1
61	Formation of Nano-porous Structure in a Cathode at the Interface between Pt Electrode and YSZ during CO2 Electrolysis at 1,000â€†Â°C. High Temperature Materials and Processes, 2018, 37, 365-373.	1.4	1
62	Synthesis of AlN particles via direct nitridation in a drop tube furnace. Journal of the Ceramic Society of Japan, 2019, 127, 810-817.	1.1	1
63	Ironmaking Using Municipal Solid Waste (MSW) as Reducing Agent: A Preliminary Investigation on MSW Decomposition and Ore Reduction Behavior. ISIJ International, 2022, 62, 2491-2499.	1.4	1
64	Development of Micro-encapsulated Phase Change Materialsusing Al-based Alloy for High Temperature Applications. Journal of the Society of Powder Technology, Japan, 2017, 54, 37-40.	0.1	0