

Pei Sun

List of Publications by Year in descending order

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42
papers

1,712
citations

331670

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361022

35
g-index

47
all docs

47
docs citations

47
times ranked

1051
citing authors

#	ARTICLE	IF	CITATIONS
1	Powder metallurgy of titanium “ past, present, and future. International Materials Reviews, 2018, 63, 407-459.	19.3	339
2	Review of the Methods for Production of Spherical Ti and Ti Alloy Powder. Jom, 2017, 69, 1853-1860.	1.9	169
3	A novel method for production of spherical Ti-6Al-4V powder for additive manufacturing. Powder Technology, 2016, 301, 331-335.	4.2	99
4	Hydrogen assisted magnesiothermic reduction of TiO ₂ . Chemical Engineering Journal, 2017, 308, 299-310.	12.7	84
5	A powder metallurgy method for manufacturing Ti-6Al-4V with wrought-like microstructures and mechanical properties via hydrogen sintering and phase transformation (HSPT). Scripta Materialia, 2015, 107, 103-106.	5.2	82
6	An experimental study of the (Ti-6Al-4V) _x H phase diagram using in situ synchrotron XRD and TGA/DSC techniques. Acta Materialia, 2015, 84, 29-41.	7.9	78
7	A novel chemical pathway for energy efficient production of Ti metal from upgraded titanium slag. Chemical Engineering Journal, 2016, 286, 517-527.	12.7	77
8	Thermodynamic Destabilization of Ti-O Solid Solution by H ₂ and Deoxygenation of Ti Using Mg. Journal of the American Chemical Society, 2016, 138, 6916-6919.	13.7	65
9	Hydrogen Sintering of Titanium to Produce High Density Fine Grain Titanium Alloys. Advanced Engineering Materials, 2012, 14, 383-387.	3.5	58
10	Amorphous TiCu-Based Additives for Improving Hydrogen Storage Properties of Magnesium Hydride. ACS Applied Materials & Interfaces, 2019, 11, 38868-38879.	8.0	54
11	Hydrogen-enabled microstructure and fatigue strength engineering of titanium alloys. Scientific Reports, 2017, 7, 41444.	3.3	48
12	The effect of molten salt on oxygen removal from titanium and its alloys using calcium. Journal of Materials Science, 2017, 52, 4120-4128.	3.7	47
13	An experimental survey of additives for improving dehydrogenation properties of magnesium hydride. Journal of Power Sources, 2015, 278, 38-42.	7.8	42
14	Hydrogen Assisted Magnesiothermic Reduction (HAMR) of Commercial TiO ₂ to Produce Titanium Powder with Controlled Morphology and Particle Size. Materials Transactions, 2017, 58, 355-360.	1.2	42
15	New Powder Metallurgical Approach to Achieve High Fatigue Strength in Ti-6Al-4V Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2335-2345.	2.2	37
16	Effect of air exposure on hydrogen storage properties of catalyzed magnesium hydride. Journal of Power Sources, 2020, 454, 227936.	7.8	36
17	Pathways to Optimize Performance/Cost Ratio of Powder Metallurgy Titanium “ A Perspective. Key Engineering Materials, 0, 520, 15-23.	0.4	35
18	Phase Transformations and Formation of Ultra-Fine Microstructure During Hydrogen Sintering and Phase Transformation (HSPT) Processing of Ti-6Al-4V. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 5546-5560.	2.2	34

#	ARTICLE	IF	CITATIONS
19	Hydrogen enhanced thermodynamic properties and kinetics of calciothermic deoxygenation of titanium-oxygen solid solutions. International Journal of Hydrogen Energy, 2018, 43, 11939-11951.	7.1	30
20	A Perspective on Thermochemical and Electrochemical Processes for Titanium Metal Production. Jom, 2017, 69, 1861-1868.	1.9	27
21	Potentially More Ecofriendly Chemical Pathway for Production of High-Purity TiO ₂ from Titanium Slag. ACS Sustainable Chemistry and Engineering, 2019, 7, 4821-4830.	6.7	23
22	Kinetically enhanced metallothermic redox of TiO ₂ by Mg in molten salt. Chemical Engineering Journal, 2017, 327, 169-182.	12.7	22
23	Capturing low-pressure hydrogen using V Ti Cr catalyzed magnesium hydride. Journal of Power Sources, 2019, 413, 139-147.	7.8	21
24	Deoxygenation of Ti metal: A review of processes in literature. International Journal of Refractory Metals and Hard Materials, 2020, 91, 105270.	3.8	17
25	A Comparison of Hydrogen Sintering and Phase Transformation (HSPT) Processing with Vacuum Sintering of CP-Ti. Advanced Engineering Materials, 2013, 15, 1007-1013.	3.5	15
26	Mitigation of the Surface Oxidation of Titanium by Hydrogen. Journal of Physical Chemistry C, 2018, 122, 20691-20700.	3.1	15
27	Mechanisms of Hydrogen-Assisted Magnesiothermic Reduction of TiO ₂ . Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 2998-3006.	2.1	14
28	In situ formation of nanocrystalline MgH ₂ through room temperature hydrogenation. Materials and Design, 2022, 218, 110729.	7.0	14
29	An investigation of the reduction of TiO ₂ by Mg in H ₂ atmosphere. Chemical Engineering Science, 2019, 195, 484-493.	3.8	12
30	Hydrogen sintering of titanium and its alloys. , 2015, , 163-182.		11
31	Novel Method for Making Biomedical Segregation-Free Ti-30Ta Alloy Spherical Powder for Additive Manufacturing. Jom, 2018, 70, 364-369.	1.9	10
32	Microstructure and Mechanical Properties of Ti-6Al-4V Fabricated by Selective Laser Melting of Powder Produced by Granulation-Sintering-Deoxygenation Method. Jom, 2017, 69, 2731-2737.	1.9	9
33	Manipulation of microstructure and mechanical properties during dehydrogenation of hydrogen-sintered Ti-6Al-4V. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 764, 138244.	5.6	9
34	A study on the synthesis of coarse TiO ₂ powder with controlled particle sizes and morphology via hydrolysis. Powder Technology, 2021, 393, 650-658.	4.2	8
35	A high throughput dynamic method for characterizing thermodynamic properties of catalyzed magnesium hydrides by thermogravimetric analysis. Physical Chemistry Chemical Physics, 2021, 23, 15374-15383.	2.8	5
36	A Novel Method for Densification of Titanium Using Hydrogenation-Induced Expansion under Constrained Conditions. Scripta Materialia, 2022, 210, 114432.	5.2	5

#	ARTICLE	IF	CITATIONS
37	Energy consumption of the Kroll and HAMR processes for titanium production. , 2020, , 389-410.		4
38	Deoxygenation of Ti metal. , 2020, , 181-223.		3
39	Selected processes for Ti production “ a cursory review. , 2020, , 351-362.		2
40	Hydrogen assisted magnesiothermic reduction (HAMR) of TiO ₂ to produce titanium metal powder. , 2020, , 165-179.		2
41	Analysis of the Elevated Temperature Plastic Flow Response of Ti-6Al-4V Produced via the Hydrogen Sintering and Phase Transformation (HSPT) Process. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3956-3966.	2.2	1
42	Effects of Process Gas Pressure and Type on Oxygen Content in Sintered Titanium Produced using Jet-Milled Titanium Hydride Powders. Jom, 2020, 72, 1286-1291.	1.9	1