

# Xinzhong Li

## List of Publications by Year in descending order

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papers

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752256

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Design of hydrogen permeable Nb–Ni–Ti alloys by correlating the microstructures, solidification paths and hydrogen permeability. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 3505-3516.	3.8	40
2	Development of Nb <sub>35</sub> Mo <sub>5</sub> Ti <sub>30</sub> Ni <sub>30</sub> alloy membrane for hydrogen separation applications. <i>Journal of Membrane Science</i> , 2018, 553, 171-179.	4.1	28
3	Hydrogen transport behavior of as-cast, cold rolled and annealed Nb <sub>40</sub> Ti <sub>30</sub> Co <sub>30</sub> alloy membranes. <i>Journal of Membrane Science</i> , 2016, 514, 294-304.	4.1	24
4	Changes in microstructure, ductility and hydrogen permeability of Nb–(Ti, Hf)Ni alloy membranes by the substitution of Ti by Hf. <i>Journal of Membrane Science</i> , 2015, 484, 47-56.	4.1	23
5	V-Cr-Cu dual-phase alloy membranes for hydrogen separation: An excellent combination of ductility, hydrogen permeability and embrittlement resistance. <i>Journal of Membrane Science</i> , 2017, 524, 354-361.	4.1	21
6	Analysis of W/Mo alloying on hydrogen permeation performance of dual phase Nb-Ti-Ni alloys based on hydrogen chemical potentials. <i>Journal of Membrane Science</i> , 2019, 584, 290-299.	4.1	21
7	Effect of peritectic reaction on dendrite coarsening in directionally solidified Sn–36 at.%Ni alloy. <i>Journal of Materials Science</i> , 2012, 47, 6108-6117.	1.7	20
8	Well-aligned in situ composites in directionally solidified Fe–Ni peritectic system. <i>Applied Physics Letters</i> , 2006, 89, 231918.	1.5	19
9	Faceted–nonfaceted growth transition and 3-D morphological evolution of primary Al <sub>6</sub> Mn microcrystals in directionally solidified Al–3 at.% Mn alloy. <i>Journal of Materials Research</i> , 2014, 29, 1256-1263.	1.2	18
10	Hydrogen permeation behavior of Nb <sub>30</sub> Ti <sub>35</sub> Ni <sub>35</sub> –xCo <sub>x</sub> (x=0–35) alloys containing high fractions of eutectic. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9366-9374.	3.8	18
11	Anisotropic layered Bi <sub>2</sub> Te <sub>3</sub> -In <sub>2</sub> Te <sub>3</sub> composites: control of interface density for tuning of thermoelectric properties. <i>Scientific Reports</i> , 2017, 7, 43611.	1.6	18
12	Design of (Nb, Mo) <sub>40</sub> Ti <sub>30</sub> Ni <sub>30</sub> alloy membranes for combined enhancement of hydrogen permeability and embrittlement resistance. <i>Scientific Reports</i> , 2017, 7, 209.	1.6	17
13	Degradation of Pd/Nb <sub>30</sub> Ti <sub>35</sub> Co <sub>35</sub> /Pd hydrogen permeable membrane: A numerical description. <i>Journal of Membrane Science</i> , 2020, 601, 117922.	4.1	17
14	Nb–HfCo alloys with pronounced high hydrogen permeability: A new family of metallic hydrogen permeation membranes. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 8385-8389.	3.8	16
15	Microstructure dependent hydrogen permeability in eutectic Nb <sub>30</sub> Ti <sub>35</sub> Co <sub>35</sub> . <i>International Journal of Hydrogen Energy</i> , 2016, 41, 13086-13092.	3.8	16
16	Substantial enhancement of hydrogen permeability and embrittlement resistance of Nb <sub>30</sub> Ti <sub>25</sub> Hf <sub>10</sub> Co <sub>35</sub> eutectic alloy membranes by directional solidification. <i>Journal of Membrane Science</i> , 2015, 496, 165-173.	4.1	15
17	Microstructural stability and its effect on hydrogen permeability in equiaxed and directionally solidified eutectic Nb <sub>30</sub> Ti <sub>35</sub> Co <sub>35</sub> alloys. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 9026-9031.	3.8	15
18	Composition-dependent phase substitution in directionally solidified Sn-22 at.%Ni peritectic alloy. <i>Journal of Materials Science</i> , 2016, 51, 1512-1521.	1.7	14

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19	Prediction of the solidification path of Al-4.37Cu-27.02Mg ternary eutectic alloy with a unified microsegregation model coupled with Thermo-Calc. <i>International Journal of Materials Research</i> , 2013, 104, 244-254.	0.1	10
20	Primary dendrite distribution in directionally solidified Sn-36 at.% Ni peritectic alloy. <i>Journal of Materials Research</i> , 2013, 28, 740-746.	1.2	10
21	Local melting/solidification during peritectic solidification in a steep temperature gradient: analysis of a directionally solidified Al-25at%Ni. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 116, 1821-1831.	1.1	9
22	Improving hydrogen permeability and sustainability of Nb30Ti35Co35 eutectic alloy membrane by substituting Co using Fe. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 30720-30730.	3.8	9
23	Hydrogen transport through the V-Cr-Al alloys: Hydrogen solution, permeation and thermal-stability. <i>Separation and Purification Technology</i> , 2020, 240, 116654.	3.9	9
24	Controllable 3D morphology and growth mechanism of quasicrystalline phase in directionally solidified Al-Mn-Be alloy. <i>Journal of Materials Research</i> , 2014, 29, 2547-2555.	1.2	8
25	On migration of primary/peritectic interface during interrupted directional solidification of Sn-Ni peritectic alloy. <i>Scientific Reports</i> , 2016, 6, 24512.	1.6	8
26	Structure and properties of niobium carbide coated vanadium composite membranes for high temperature hydrogen separation. <i>Journal of Alloys and Compounds</i> , 2022, 900, 163530.	2.8	8
27	Tailoring the hydrogen transport properties of highly permeable Nb51W5Ti23Ni21 alloy membrane by Pd substitution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 6734-6744.	3.8	7
28	Influence of initial solid-liquid interface morphology on further microstructure evolution during directional solidification. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 443-451.	1.1	6
29	Highly sulfur-tolerant Pd composite membranes with a protective layer of MoS <sub>2</sub> / $\gamma$ -alumina. <i>Journal of Materials Chemistry A</i> , 2017, 5, 8892-8896.	5.2	6
30	Modified Liquid Displacement Porometry and Its Applications in Pd-Based Composite Membranes. <i>Membranes</i> , 2018, 8, 29.	1.4	6
31	On oscillatory microstructure during cellular growth of directionally solidified Sn-36at.%Ni peritectic alloy. <i>Scientific Reports</i> , 2016, 6, 24315.	1.6	5
32	Enhancement of hydrogen permeation stability at high temperatures for Pd/Nb30Ti35Co35/Pd composite membranes by HfN intermediate layer. <i>Journal of Membrane Science</i> , 2022, 643, 120062.	4.1	5
33	A simple model for lamellar peritectic coupled growth with peritectic reaction. <i>Science in China Series G: Physics, Mechanics and Astronomy</i> , 2007, 50, 442-450.	0.2	4
34	Isothermal Peritectic Coupled Growth in Directionally Solidified Cu-20wt% Sn Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 4219-4223.	1.1	4
35	Directional Solidification of Ti6Al4V Ingots with an Electromagnetic Cold Crucible by Adjusting the Meniscus. <i>ISIJ International</i> , 2012, 52, 1296-1300.	0.6	4
36	Detachment of secondary dendrite arm in a directionally solidified Sn-Ni peritectic alloy under deceleration growth condition. <i>Scientific Reports</i> , 2016, 6, 27682.	1.6	4

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37	Improvement of mechanical properties in micro-alloying Al-Si-Mg-Zn cast alloy. <i>Materials Letters</i> , 2021, 283, 128810.	1.3	4
38	The optimized composition and strong sustainability of hydrogen permeation of Nb <sub>30</sub> Ti <sub>35</sub> Co <sub>35</sub> eutectic alloy membrane after 5Åat%Fe substitution. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 13038-13043.	3.8	4
39	Effect of peritectic reaction on the migration of secondary dendrite arms in the presence of tertiary dendrites: analysis of a directionally solidified Snâ€“36Åat.%Ni peritectic alloy. <i>Journal of Materials Science</i> , 2013, 48, 2608-2617.	1.7	3
40	Secondary dendrite arm migration caused by temperature gradient zone melting in the directionally solidified Snâ€“40 at.% Mn peritectic alloy. <i>Journal of Materials Research</i> , 2013, 28, 1196-1202.	1.2	3
41	Effect of growth rate on microstructures and microhardness in directionally solidified Tiâ€“47Alâ€“1.0Wâ€“0.5Si alloy. <i>Journal of Materials Research</i> , 2016, 31, 618-626.	1.2	3
42	Substantial enhancement of hydrogen permeability of Mo <sub>2</sub> C/V composite membranes by ion beam sputtering. <i>Journal of Membrane Science</i> , 2022, 647, 120312.	4.1	3