

# Hongchao Kou

## List of Publications by Year in descending order

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papers

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citations

430874

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times ranked

612  
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#	ARTICLE	IF	CITATIONS
1	Composite structure of $\beta'$ phase in metastable $\beta^2$ Ti alloys induced by lattice strain during $\beta^2$ to $\beta'$ phase transformation. <i>Acta Materialia</i> , 2017, 132, 307-326.	7.9	80
2	Microstructure and mechanical property correlation and property optimization of a near $\beta^2$ titanium alloy Ti-7333. <i>Journal of Alloys and Compounds</i> , 2016, 682, 517-524.	5.5	66
3	Microstructure and hydrogen storage properties of Mg-Ni-Ce alloys with a long-period stacking ordered phase. <i>Journal of Power Sources</i> , 2017, 338, 91-102.	7.8	62
4	Evolution of the secondary $\beta'$ phase morphologies during isothermal heat treatment in Ti-7333 alloy. <i>Journal of Alloys and Compounds</i> , 2013, 577, 516-522.	5.5	53
5	Hydrogen desorption performance of high-energy ball milled Mg <sub>2</sub> Ni <sub>4</sub> catalyzed by multi-walled carbon nanotubes coupling with TiF <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , 2014, 39, 19672-19681.	7.1	51
6	Diffusion Research in BCC Ti-Al-Mo Ternary Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 1647-1652.	2.2	44
7	Dependence of mechanical properties on the microstructure characteristics of a near $\beta^2$ titanium alloy Ti-7333. <i>Journal of Materials Science and Technology</i> , 2019, 35, 48-54.	10.7	41
8	Characteristics of a hot-rolled near $\beta^2$ titanium alloy Ti-7333. <i>Materials Characterization</i> , 2017, 129, 135-142.	4.4	35
9	Cr-Assisted refinement of $\beta'$ phase and its effect on the tensile properties of a near $\beta^2$ titanium alloy. <i>Journal of Materials Science and Technology</i> , 2020, 44, 24-30.	10.7	33
10	Precipitation of $\beta'$ phase and its morphological evolution during continuous heating in a near $\beta^2$ titanium alloy Ti-7333. <i>Materials Characterization</i> , 2017, 132, 199-204.	4.4	32
11	Phase precipitation behavior during isothermal deformation in $\beta^2$ -quenched near beta titanium alloy Ti-7333. <i>Journal of Alloys and Compounds</i> , 2016, 671, 381-388.	5.5	31
12	Microstructure and electrochemical hydrogenation/dehydrogenation performance of melt-spun La-doped Mg <sub>2</sub> Ni alloys. <i>Materials Characterization</i> , 2015, 106, 163-174.	4.4	29
13	Texture evolution and the recrystallization behavior in a near $\beta^2$ titanium alloy Ti-7333 during the hot-rolling process. <i>Materials Characterization</i> , 2020, 159, 109999.	4.4	27
14	Precipitation behavior of $\beta'$ phase during aging treatment in a $\beta^2$ -quenched Ti-7333. <i>Materials Characterization</i> , 2018, 140, 275-280.	4.4	25
15	On the amorphization behavior and hydrogenation performance of high-energy ball-milled Mg <sub>2</sub> Ni alloys. <i>Materials Characterization</i> , 2013, 80, 21-27.	4.4	24
16	A phase-field approach to athermal $\beta^2 \rightarrow \beta'$ transformation. <i>Computational Materials Science</i> , 2012, 53, 187-193.	3.0	21
17	Hydrogenation behavior of high-energy ball milled amorphous Mg <sub>2</sub> Ni catalyzed by multi-walled carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 16168-16176.	7.1	21
18	Non-isothermal synergetic catalytic effect of TiF <sub>3</sub> and Nb <sub>2</sub> O <sub>5</sub> on dehydrogenation high-energy ball milled MgH <sub>2</sub> . <i>Materials Chemistry and Physics</i> , 2016, 183, 65-75.	4.0	21

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19	The origin of striation in the metastable $\beta_2$ phase of titanium alloys observed by transmission electron microscopy. <i>Journal of Applied Crystallography</i> , 2017, 50, 795-804.	4.5	20
20	Precipitation of nanosized DO22 superlattice with high thermal stability in an Ni-Cr-W superalloy. <i>Scripta Materialia</i> , 2014, 76, 49-52.	5.2	18
21	Microstructure Characterization and Mechanical Properties of In Situ Synthesized Ti <sub>2</sub> AlN/Ti <sub>48</sub> Al <sub>2</sub> Cr <sub>2</sub> N Composites. <i>Advanced Engineering Materials</i> , 2014, 16, 507-510.	3.5	17
22	Insight into solid-solution strengthened bulk and stacking faults properties in Ti alloys: a comprehensive first-principles study. <i>Journal of Materials Science</i> , 2018, 53, 7493-7505.	3.7	17
23	A brief review of data-driven ICME for intelligently discovering advanced structural metal materials: Insight into atomic and electronic building blocks. <i>Journal of Materials Research</i> , 2020, 35, 872-889.	2.6	17
24	When a defect is a pathway to improve stability: a case study of the L12 Co3TM superlattice intrinsic stacking fault. <i>Journal of Materials Science</i> , 2019, 54, 13609-13618.	3.7	16
25	The $\beta_2$ phase transformation during the low temperature aging and low rate heating process of metastable $\beta_2$ titanium alloys. <i>Materials Chemistry and Physics</i> , 2020, 239, 122125.	4.0	16
26	$\beta_2$ to $\beta_1$ transformation strain associated with the precipitation of $\beta_1$ phase in a metastable $\beta_2$ titanium alloy. <i>Journal of Materials Science</i> , 2021, 56, 1685-1693.	3.7	15
27	Microstructure, phase and microhardness distribution of laser-deposited Ni-based amorphous coating. <i>International Journal of Surface Science and Engineering</i> , 2010, 4, 296.	0.4	10
28	Interdiffusion in FCC Co-Al-Ti Ternary Alloys. <i>Journal of Phase Equilibria and Diffusion</i> , 2015, 36, 127-135.	1.4	10
29	Interstitial triggered grain boundary embrittlement of Al-X (X=H, N and O). <i>Computational Materials Science</i> , 2019, 163, 241-247.	3.0	8
30	Finite element simulation on the deep drawing of titanium thin-walled surface part. <i>Rare Metals</i> , 2010, 29, 108-113.	7.1	6
31	Macrosegregation Behavior of Ti-10V-2Fe-3Al Alloy During Vacuum Consumable Arc Remelting Process. <i>Journal of Materials Engineering and Performance</i> , 2011, 20, 65-70.	2.5	6
32	Kinetic Diffusion Couple for Mapping Microstructural and Mechanical Data on Ti-Al-Mo Titanium Alloys. <i>Materials</i> , 2018, 11, 1112.	2.9	6
33	Effect of strain rate on impact response and $\beta_2$ transformation of quenched Zr-Nb alloys. <i>Materials Characterization</i> , 2013, 84, 10-15.	4.4	5
34	Microstructure Changes in Zr-Based Metallic Glass Induced by Ion Milling. <i>Rare Metal Materials and Engineering</i> , 2010, 39, 1693-1696.	0.8	4
35	Effects of Ta addition on the microstructure and mechanical properties of Ti <sub>40</sub> Zr <sub>25</sub> Ni <sub>8</sub> Cu <sub>9</sub> Be <sub>18</sub> amorphous alloy. <i>International Journal of Minerals, Metallurgy, and Materials</i> , 2007, 14, 31-35.	0.2	3
36	Modeling of Incommensurate $\beta_2$ Structure in the Zr-Nb Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 2581-2586.	2.2	2

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37	In situ Observation of the Initial Stage of $\gamma$ Lamella Formation in Ti48Al2Cr2Nb Alloy. <i>Advanced Engineering Materials</i> , 2017, 19, 1600670.	3.5	2
38	Deposition of Fe-based metallic glass coatings by Air Plasma Spraying process. <i>International Journal of Surface Science and Engineering</i> , 2010, 4, 288.	0.4	1
39	Fabrication and Microstructure Characteristic of YBCO Bulk by Directional Top-Seeded Power Melting Process. <i>Rare Metal Materials and Engineering</i> , 2008, 37, 1893-1897.	0.8	0