

Ulrich Prah1

List of Publications by Year in descending order

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Version: 2024-02-01

27
papers

986
citations

393982

19
h-index

525886

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all docs

27
docs citations

27
times ranked

615
citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical nature of hydrogen-based direct reduction of iron oxides. <i>Scripta Materialia</i> , 2022, 213, 114571.	2.6	43
2	Green steel at its crossroads: Hybrid hydrogen-based reduction of iron ores. <i>Journal of Cleaner Production</i> , 2022, 340, 130805.	4.6	36
3	Chemo-mechanical phase-field modeling of iron oxide reduction with hydrogen. <i>Acta Materialia</i> , 2022, 231, 117899.	3.8	19
4	Multiphase-field simulation of austenite reversion in medium-Mn steels. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2021, 28, 847-853.	2.4	5
5	Influence of microstructure and atomic-scale chemistry on the direct reduction of iron ore with hydrogen at 700Å°C. <i>Acta Materialia</i> , 2021, 212, 116933.	3.8	61
6	Sustainable steel through hydrogen plasma reduction of iron ore: Process, kinetics, microstructure, chemistry. <i>Acta Materialia</i> , 2021, 213, 116971.	3.8	46
7	Effect of equal-channel angular pressing on microstructural evolution, mechanical property and biodegradability of an ultrafine-grained zinc alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 824, 141857.	2.6	34
8	Evaluation of hydrogen effect on the fatigue crack growth behavior of medium-Mn steels via in-situ hydrogen plasma charging in an environmental scanning electron microscope. <i>Journal of Materials Science and Technology</i> , 2021, 85, 30-43.	5.6	13
9	Revealing tribo-oxidation mechanisms of the copper-WC system under high tribological loading. <i>Scripta Materialia</i> , 2021, 204, 114142.	2.6	11
10	Mechanism-controlled thermomechanical treatment of high manganese steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 828, 142056.	2.6	10
11	On the hydrogen embrittlement behavior of nickel-based alloys: Alloys 718 and 725. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 792, 139785.	2.6	44
12	Phase boundary segregation-induced strengthening and discontinuous yielding in ultrafine-grained duplex medium-Mn steels. <i>Acta Materialia</i> , 2020, 200, 389-403.	3.8	70
13	Macroscopic to nanoscopic in situ investigation on yielding mechanisms in ultrafine grained medium Mn steels: Role of the austenite-ferrite interface. <i>Acta Materialia</i> , 2019, 178, 10-25.	3.8	95
14	Influence of Microstructural Morphology on Hydrogen Embrittlement in a Medium-Mn Steel Fe-12Mn-3Al-0.05C. <i>Metals</i> , 2019, 9, 929.	1.0	13
15	Precipitation behavior and austenite stability of Nb or Nb-Mo micro-alloyed warm-rolled medium-Mn steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 766, 138371.	2.6	27
16	Materials and Processes for the Third-generation Advanced High-strength Steels. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2019, 164, 466-474.	0.4	30
17	Insight into hydrogen effect on a duplex medium-Mn steel revealed by in-situ nanoindentation test. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20545-20551.	3.8	37
18	Strain Hardening, Damage and Fracture Behavior of Al-Added High Mn TWIP Steels. <i>Metals</i> , 2019, 9, 367.	1.0	16

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19	Anisotropy and strain rate effects on the failure behavior of TWIP steel: A multiscale experimental study. <i>International Journal of Plasticity</i> , 2019, 115, 178-199.	4.1	34
20	Strain Aging Behavior of an Austenitic High-Mn Steel. <i>Steel Research International</i> , 2018, 89, 1700515.	1.0	12
21	Recrystallization behavior in a low-density high-Mn high-Al austenitic steel undergone thin strip casting process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 733, 87-97.	2.6	26
22	Multiphase-Field Simulation of Cementite Precipitation during Isothermal Lower Bainitic Transformation. <i>Steel Research International</i> , 2018, 89, 1800028.	1.0	9
23	Influence of Intercritical Annealing Temperature on Microstructure and Mechanical Properties of a Cold-Rolled Medium-Mn Steel. <i>Metals</i> , 2018, 8, 357.	1.0	32
24	Medium-manganese steels processed by austenite-reverted-transformation annealing for automotive applications. <i>Materials Science and Technology</i> , 2017, 33, 1713-1727.	0.8	85
25	The TRIP Effect and Its Application in Cold Formable Sheet Steels. <i>Steel Research International</i> , 2017, 88, 1700218.	1.0	121
26	Investigation of the Microstructure Evolution in a Fe-17Mn-1.5Al-0.3C Steel via In Situ Synchrotron X-ray Diffraction during a Tensile Test. <i>Materials</i> , 2017, 10, 1129.	1.3	32
27	The Effect of Bake-Hardening Parameters on the Mechanical Properties of Dual-Phase Steels. <i>Steel Research International</i> , 2016, 87, 1559-1565.	1.0	25