

Zhi-Gang Yang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2003941/publications.pdf>

Version: 2024-02-01

79
papers

1,234
citations

394390
19
h-index

434170
31
g-index

79
all docs

79
docs citations

79
times ranked

988
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Temperature dependence of carbon deposits within oxide scale on CrMoV steel in atmospheric and supercritical CO ₂ . Corrosion Science, 2022, 195, 109979. | 6.6 | 2 |
| 2 | Corrosion Behavior of Multiphase Bainitic Rail Steels. Metals, 2022, 12, 694. | 2.3 | 5 |
| 3 | Real-Time Quality Monitoring of Laser Cladding Process on Rail Steel by an Infrared Camera. Metals, 2022, 12, 825. | 2.3 | 5 |
| 4 | Spalling resistance of thermally grown oxide based on NiCoCrAlY(Ti) with different oxide peg sizes. Rare Metals, 2021, 40, 663-670. | 7.1 | 5 |
| 5 | Effect of thermal cycles on microstructure of reduced activation steel fabricated using laser melting deposition. Journal of Iron and Steel Research International, 2021, 28, 316-326. | 2.8 | 9 |
| 6 | Characteristics of oxide pegs in Ti- and Y-doped CoNiCrAl alloys at 1150°C. Rare Metals, 2021, 40, 2059-2064. | 7.1 | 9 |
| 7 | Experimental and theoretical analysis of equilibrium segregation and radiation-induced segregation of Cr at grain boundaries in a reduced activation ferritic/martensitic (RAFM) steel. Journal of Iron and Steel Research International, 2021, 28, 445-452. | 2.8 | 2 |
| 8 | Multi-Year NDVI Values as Indicator of the Relationship between Spatiotemporal Vegetation Dynamics and Environmental Factors in the Qaidam Basin, China. Remote Sensing, 2021, 13, 1240. | 4.0 | 18 |
| 9 | On the Decarburization of Surface Pearlite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3198. | 2.2 | 0 |
| 10 | Phase-Field Modeling of Hydrogen Diffusion and Trapping in Steels. Acta Metallurgica Sinica (English) 2021, 57, 107-117. | 2.9 | 7 |
| 11 | Unraveling the effects of Nb interface segregation on ferrite transformation kinetics in low carbon steels. Acta Materialia, 2021, 215, 117081. | 7.9 | 25 |
| 12 | Effect of CO ₂ gas pressure on composition, growth rate, and structure of duplex oxide formed on 9Cr steel at 550 °C. Corrosion Science, 2020, 163, 108252. | 6.6 | 13 |
| 13 | Understanding microstructure-evolution-dependent fracture behaviors in pearlitic steels. Journal of Iron and Steel Research International, 2020, 27, 334-341. | 2.8 | 2 |
| 14 | Carbon depositions within the oxide scale and its effect on the oxidation behavior of low alloy steel in low (0.1 MPa), sub-(5 MPa) and supercritical (10 MPa) CO ₂ at 550 °C. Corrosion Science, 2020, 177, 108950. | 6.6 | 12 |
| 15 | First-Principles Calculated Structures and Carbon Binding Energies of $\{10\bar{1}1\}$ Tilt Grain Boundaries in Corundum Structured Metal Oxides. Oxidation of Metals, 2020, 94, 37-49. | 2.1 | 0 |
| 16 | Chemical boundary engineering: A new route toward lean, ultrastrong yet ductile steels. Science Advances, 2020, 6, eaay1430. | 10.3 | 120 |
| 17 | Microstructural Instability and Precipitation Behaviors of Intermetallic Phases in a Nb-Containing CoNi-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2495-2508. | 2.2 | 3 |
| 18 | Kinetic transitions and Mn partitioning during austenite growth from a mixture of partitioned cementite and ferrite: Role of heating rate. Journal of Materials Science and Technology, 2020, 49, 70-80. | 10.7 | 31 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | A New Kinetic Mode During the Austenite-to-Ferrite Transformation in Fe-Mn and Fe-Mn-Mo Alloys. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 975-980. | 2.9 | 3 |
| 20 | Hot roll bonding between commercially pure titanium and high-strength low-alloy steel using Fe interlayer. <i>Journal of Iron and Steel Research International</i> , 2019, 26, 1126-1136. | 2.8 | 21 |
| 21 | Oxidation behavior and lifetime prediction of three commercial alloys used in power plants at 550°C in CO ₂ environment. <i>Journal of Iron and Steel Research International</i> , 2019, 26, 898-908. | 2.8 | 8 |
| 22 | Coordination of Pre-oxidation Time and Temperature for a Better Corrosion Resistance to CO ₂ at 550°C. <i>Oxidation of Metals</i> , 2019, 91, 657-675. | 2.1 | 4 |
| 23 | Comparative cyclic oxidation behaviour and effect of oxides on hardness of wear resistance coating alloys T-401 and T-900. <i>Journal of Iron and Steel Research International</i> , 2019, 26, 1069-1079. | 2.8 | 3 |
| 24 | Comparison of Microstructural Evolution of Oxides Formed on F91 Martensitic Steel Upon Breakaway Oxidation at 700°C in Air and CO ₂ . <i>Oxidation of Metals</i> , 2019, 91, 463-482. | 2.1 | 1 |
| 25 | Abnormal Anisotropic Dilatation During Bainitic Transformation of Ausformed Austenite. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 540-546. | 2.2 | 10 |
| 26 | Crystallographic analysis of lath martensite in a 13Cr-5Ni steel by electron backscattering diffraction. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 213-220. | 2.8 | 2 |
| 27 | Pre-oxidation Effect on Oxidation Behavior of F91 in Carbon Dioxide at 550°C. <i>Oxidation of Metals</i> , 2018, 90, 317-335. | 2.1 | 8 |
| 28 | Microstructure, precipitation and mechanical properties of a titanium-tungsten alloyed hot rolled high strength steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 718, 56-63. | 5.6 | 7 |
| 29 | Carbide precipitation and element distribution in high Co-Ni secondary hardening steel. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 340-346. | 2.8 | 15 |
| 30 | High-Temperature Oxidation Behavior of CrMoV, F91 and Mar-M247 Superalloys Exposed to Laboratory Air at 550°C. <i>Oxidation of Metals</i> , 2018, 90, 401-419. | 2.1 | 5 |
| 31 | Decelerated Coarsening of (Ti, Mo)C Particles with a Core-Shell Structure in Austenite of a Ti-Mo-Bearing Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 1455-1459. | 2.2 | 16 |
| 32 | Solubility and Anisotropic Migration Behaviors of Helium in bcc Iron Under Strain. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 199-207. | 2.9 | 2 |
| 33 | Interlayer engineering for titanium clad steel by hot roll bonding. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 739-745. | 2.8 | 21 |
| 34 | Effects of Ni on austenite stability and fracture toughness in high Co-Ni secondary hardening steel. <i>Journal of Iron and Steel Research International</i> , 2017, 24, 177-183. | 2.8 | 11 |
| 35 | A Comparison of Fourier Spectral Iterative Perturbation Method and Finite Element Method in Solving Phase-Field Equilibrium Equations. <i>Communications in Computational Physics</i> , 2017, 21, 1325-1349. | 1.7 | 16 |
| 36 | TEM and HRTEM study of oxide particles in an Al-alloyed high-Cr oxide dispersion strengthened ferritic steel with Hf addition. <i>Journal of Nuclear Materials</i> , 2017, 485, 189-201. | 2.7 | 38 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Energy for the interface system of (Nb, Mo)C/ γ -Fe. Applied Physics A: Materials Science and Processing, 2017, 123, 1. | 2.3 | 10 |
| 38 | Diffusion mechanism in molten salt baths during the production of carbide coatings via thermal reactive diffusion. International Journal of Minerals, Metallurgy and Materials, 2017, 24, 1448-1458. | 4.9 | 13 |
| 39 | Prediction of Ar ₃ during Very Slow Cooling in Low Alloy Steels. ISIJ International, 2016, 56, 678-684. | 1.4 | 2 |
| 40 | Reversed Austenite Growth Behavior of a 13Cr-5Ni Stainless Steel during Intercritical Annealing. ISIJ International, 2016, 56, 148-153. | 1.4 | 32 |
| 41 | Irradiation Induced Microstructure Evolution in Nanostructured Materials: A Review. Materials, 2016, 9, 105. | 2.9 | 32 |
| 42 | Effect of Mo Addition on the Transformation Stasis Phenomenon During the Isothermal Formation of Bainitic Ferrite. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5670-5674. | 2.2 | 4 |
| 43 | Microstructural Evolution of a Hypoeutectoid Pearlite Steel under Rolling-sliding Contact Loading. Journal of Iron and Steel Research International, 2016, 23, 1054-1060. | 2.8 | 21 |
| 44 | Variation in retained austenite content and mechanical properties of 0.2C-7Mn steel after intercritical annealing. International Journal of Minerals, Metallurgy and Materials, 2016, 23, 161-167. | 4.9 | 9 |
| 45 | Effect of molybdenum addition on the precipitation of carbides in the austenite matrix of titanium micro-alloyed steels. Journal of Materials Science, 2016, 51, 4996-5007. | 3.7 | 78 |
| 46 | Precipitate Behavior in Fe-20Cr-30Ni-2Nb Austenitic Heat-Resistant Steel. Acta Metallurgica Sinica (English Letters), 2015, 28, 424-429. | 2.9 | 4 |
| 47 | Carbon Enrichment in Austenite During Bainite Transformation in Fe-3Mn-C Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1544-1549. | 2.2 | 19 |
| 48 | Effects of Mo on Carbon Enrichment During Proeutectoid Ferrite Transformation in Hypoeutectoid Fe-C-Mn Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2347-2351. | 2.2 | 13 |
| 49 | Observation on Formation of Fresh Martensite from the Reversed Austenite During Water-Quenching Process in Fe-0.2C-5Mn Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3789-3792. | 2.2 | 16 |
| 50 | Austenite Thermal Stabilization through the Concentration of Manganese and Carbon in the 0.2C-5Mn Steel. ISIJ International, 2014, 54, 2875-2880. | 1.4 | 16 |
| 51 | Effect of Surface Mechanical Attrition Treatment on Microstructure and Oxidation Behavior in T91 Steel at High Temperature. ISIJ International, 2014, 54, 1935-1942. | 1.4 | 9 |
| 52 | Effects of Pre-tempering on Intercritical Annealing in Fe-2Mn-0.3C Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5290-5294. | 2.2 | 14 |
| 53 | Austenite layer and precipitation in high Co-Ni maraging steel. Micron, 2014, 67, 112-116. | 2.2 | 33 |
| 54 | Antibacterial Property and Precipitation Behavior of Ag-Added 304 Austenitic Stainless Steel. Acta Metallurgica Sinica (English Letters), 2014, 27, 539-545. | 2.9 | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Volume Fractions of Proeutectoid Ferrite/Pearlite and Their Dependence on Prior Austenite Grain Size in Hypoeutectoid Fe-Mn-C Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5456-5467. | 2.2 | 16 |
| 56 | Growing process and reaction mechanism of electroless Niâ€“Moâ€“P film on SiO ₂ substrate. Transactions of Nonferrous Metals Society of China, 2013, 23, 3629-3633. | 4.2 | 13 |
| 57 | Excess Carbon Enrichment in Austenite During Intercritical Annealing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4872-4875. | 2.2 | 18 |
| 58 | Effects of alloying elements on the kinetics of austenitization from pearlite in Feâ€“Caâ€“M alloys. Philosophical Magazine, 2013, 93, 1095-1109. | 1.6 | 32 |
| 59 | Investigation of Pt-Dy co-doping effects on isothermal oxidation behavior of (Co,Ni)-based alloy. Journal of Rare Earths, 2012, 30, 928-933. | 4.8 | 13 |
| 60 | An Analytical Model for the Kinetics of Strain-induced Precipitation in Titanium Micro-alloyed Steels. ISIJ International, 2012, 52, 1661-1669. | 1.4 | 20 |
| 61 | Third generation high strength low alloy steels with improved toughness. Science China Technological Sciences, 2012, 55, 1797-1805. | 4.0 | 28 |
| 62 | Ausforming effects on anisotropy of mechanical properties in HSLA martensitic steel. Science China Technological Sciences, 2012, 55, 1806-1813. | 4.0 | 3 |
| 63 | Transformation character of ferrite formation by a ledge mechanism under a mixed-control model. International Journal of Minerals, Metallurgy and Materials, 2012, 19, 428-433. | 4.9 | 1 |
| 64 | Effect of TaC Particles Dissolution on Grain Coarsening in Reduced Activation Steels. Journal of Iron and Steel Research International, 2011, 18, 47-52. | 2.8 | 38 |
| 65 | Magnetic and Microwave Absorption Properties of Core/Shell FeCo-Based Nanocomposites Synthesized by a Simple Wet Chemical Method. IEEE Transactions on Magnetics, 2011, 47, 3456-3459. | 2.1 | 6 |
| 66 | Kinetics of Reverse Transformation from Pearlite to Austenite in an Fe-0.6% C Alloy and the Effects of Alloying Elements. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 1586-1596. | 2.2 | 33 |
| 67 | Synthesis and evaluation of corrosion resistance of molybdate-based conversion coatings on electroplated zinc. Surface and Coatings Technology, 2010, 205, 2328-2334. | 4.8 | 41 |
| 68 | Electroless Niâ€“Moâ€“P diffusion barriers with Pd-activated self-assembled monolayer on SiO ₂ . Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 166, 67-75. | 3.5 | 31 |
| 69 | Evolution and coarsening of carbides in 2.25Cr-1Mo steel weld metal during high temperature tempering. Journal of Iron and Steel Research International, 2010, 17, 74-78. | 2.8 | 43 |
| 70 | Influence of Prior Austenite Deformation and Non-Metallic Inclusions on Ferrite Formation in Low-Carbon Steels. Journal of Iron and Steel Research International, 2010, 17, 36-42. | 2.8 | 9 |
| 71 | Vertical Short Crack Initiation in Medium Carbon Bainitic Steel Under Mild Tractive Rolling Contact. Journal of Iron and Steel Research International, 2008, 15, 37-41. | 2.8 | 3 |
| 72 | Creation of Air-Cooled Mn Series Bainitic Steels. Journal of Iron and Steel Research International, 2008, 15, 1-9. | 2.8 | 66 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | Electroless Plating Ni-based Barrier Layers for 3D Interconnection. , 2006, , . | | 2 |
| 74 | Electroless Cu Deposition on a TiN barrier in CuSO ₄ -HF Solution. Journal of the Electrochemical Society, 2005, 152, C466. | 2.9 | 6 |
| 75 | Ledges in Widmanstätten ferrite observed by scanning tunnelling microscopy. Journal of Materials Science Letters, 1998, 17, 331-333. | 0.5 | 2 |
| 76 | Title is missing!. Journal of Materials Science, 1998, 33, 487-496. | 3.7 | 1 |
| 77 | General existence of ledges on $\{111\}$ plates in Cu-Zn-Al alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1997, 28, 1617-1623. | 2.2 | 2 |
| 78 | Formation of bainite in ferrous and nonferrous alloys through sympathetic nucleation and ledgewise growth mechanism. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 1535-1545. | 2.2 | 16 |
| 79 | Grain Refinement and Toughening of Low Carbon Low Alloy Martensitic Steel With Yield Strength 900 MPA Grade by Ausforming. , 0, , 195-201. | | 0 |