

Bernhard Völker

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

1,784
citations

471509

17
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330143

37
g-index

37
all docs

37
docs citations

37
times ranked

1871
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Exploring stability of a nanoscale complex solid solution thin film by in situ heating transmission electron microscopy. <i>MRS Bulletin</i> , 2022, 47, 371-378. | 3.5 | 3 |
| 2 | On the fracture behavior of Cr ₂ AlC coatings. <i>Materials and Design</i> , 2021, 206, 109757. | 7.0 | 10 |
| 3 | Mechanical and optical degradation of flexible optical solar reflectors during simulated low earth orbit thermal cycling. <i>Acta Astronautica</i> , 2020, 175, 277-289. | 3.2 | 19 |
| 4 | How tensile tests allow a screening of the fracture toughness of hard coatings. <i>Surface and Coatings Technology</i> , 2020, 390, 125645. | 4.8 | 10 |
| 5 | Experimental conditions affecting the measured fracture toughness at the microscale: Notch geometry and crack extension measurement. <i>Materials and Design</i> , 2020, 191, 108582. | 7.0 | 30 |
| 6 | Microstructure, Texture, and Strength Development during High-Pressure Torsion of CrMnFeCoNi High-Entropy Alloy. <i>Crystals</i> , 2020, 10, 336. | 2.2 | 39 |
| 7 | Synthesis and Properties of Orthorhombic MoAlB Coatings. <i>Coatings</i> , 2019, 9, 510. | 2.6 | 17 |
| 8 | Stress-Dependent Elasticity of TiAlN Coatings. <i>Coatings</i> , 2019, 9, 24. | 2.6 | 20 |
| 9 | Optimizing mechanical properties of Fe _{26.7} Co _{26.7} Ni _{26.7} Si _{8.9} B ₁₁ high entropy alloy by inducing hypoeutectic to quasi-duplex microstructural transition. <i>Scientific Reports</i> , 2019, 9, 360. | 3.3 | 9 |
| 10 | Remote Tracking of Phase Changes in Cr ₂ AlC Thin Films by In-situ Resistivity Measurements. <i>Scientific Reports</i> , 2019, 9, 8266. | 3.3 | 28 |
| 11 | Influence of annealing on microstructure and mechanical properties of ultrafine-grained Ti ₄₅ Nb. <i>Materials and Design</i> , 2019, 179, 107864. | 7.0 | 19 |
| 12 | Au-Sn solders applied in transient liquid phase bonding: Microstructure and mechanical behavior. <i>Materialia</i> , 2019, 8, 100503. | 2.7 | 7 |
| 13 | Interfacial mutations in the Al-polyimide system. <i>Surface and Interface Analysis</i> , 2018, 50, 579-586. | 1.8 | 12 |
| 14 | Two-stage cracking of metallic bi-layers on polymer substrates under tension. <i>Scripta Materialia</i> , 2018, 145, 5-8. | 5.2 | 24 |
| 15 | Crack path identification in a nanostructured pearlitic steel using atom probe tomography. <i>Scripta Materialia</i> , 2018, 142, 66-69. | 5.2 | 13 |
| 16 | Thermodynamic instability of a nanocrystalline, single-phase TiZrNbHfTa alloy and its impact on the mechanical properties. <i>Acta Materialia</i> , 2018, 142, 201-212. | 7.9 | 196 |
| 17 | Metastable phase formation of Pt-X (X=Ir, Au) thin films. <i>Scientific Reports</i> , 2018, 8, 10198. | 3.3 | 11 |
| 18 | Ab Initio Guided Low Temperature Synthesis Strategy for Smooth Face-Centred Cubic FeMn Thin Films. <i>Metals</i> , 2018, 8, 384. | 2.3 | 8 |

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|----|---|-----|-----------|
| 19 | In-situ observations of the fracture and adhesion of Cu/Nb multilayers on polyimide substrates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 735, 456-462. | 5.6 | 19 |
| 20 | Influence of Annealing on Microstructure and Mechanical Properties of a Nanocrystalline CrCoNi Medium-Entropy Alloy. <i>Materials</i> , 2018, 11, 662. | 2.9 | 48 |
| 21 | Thin Film Adhesion of Flexible Electronics Influenced by Interlayers. <i>Advanced Engineering Materials</i> , 2017, 19, 1600665. | 3.5 | 14 |
| 22 | Phase Decomposition of a Single-Phase AlTiVNb High-Entropy Alloy after Severe Plastic Deformation and Annealing. <i>Advanced Engineering Materials</i> , 2017, 19, 1600674. | 3.5 | 36 |
| 23 | Fracture of severely plastically deformed Ta and Nb. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017, 64, 143-150. | 3.8 | 6 |
| 24 | Influence of testing orientation on mechanical properties of Ti45Nb deformed by high pressure torsion. <i>Materials and Design</i> , 2017, 114, 40-46. | 7.0 | 22 |
| 25 | Combined TEM and XPS studies of metal - polymer interfaces for space applications. <i>Surface and Coatings Technology</i> , 2017, 332, 368-375. | 4.8 | 24 |
| 26 | Designing a multifunctional Ti-2Cu-4Ca porous biomaterial with favorable mechanical properties and high bioactivity. <i>Journal of Alloys and Compounds</i> , 2017, 727, 338-345. | 5.5 | 8 |
| 27 | Influence of extreme thermal cycling on metal-polymer interfaces. <i>Microelectronic Engineering</i> , 2017, 167, 17-22. | 2.4 | 18 |
| 28 | Strength and ductility of heavily deformed pearlitic microstructures. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 219, 012003. | 0.6 | 6 |
| 29 | Ultra-strong and damage tolerant metallic bulk materials: A lesson from nanostructured pearlitic steel wires. <i>Scientific Reports</i> , 2016, 6, 33228. | 3.3 | 49 |
| 30 | Microstructure and metallic ion release of pure titanium and Ti-13Nb-13Zr alloy processed by high pressure torsion. <i>Materials and Design</i> , 2016, 91, 340-347. | 7.0 | 43 |
| 31 | Interface fracture and chemistry of a tungsten-based metallization on borophosphosilicate glass. <i>Philosophical Magazine</i> , 2015, 95, 1967-1981. | 1.6 | 6 |
| 32 | Mechanical properties, microstructure and thermal stability of a nanocrystalline CoCrFeMnNi high-entropy alloy after severe plastic deformation. <i>Acta Materialia</i> , 2015, 96, 258-268. | 7.9 | 952 |
| 33 | Downscaling metal-dielectric interface fracture experiments to sub-micron dimensions: A feasibility study using TEM. <i>Surface and Coatings Technology</i> , 2015, 270, 1-7. | 4.8 | 9 |
| 34 | Following crack path selection in multifilm structures with weak and strong interfaces by in situ 4-point-bending. <i>Journal of Materials Research</i> , 2015, 30, 1090-1097. | 2.6 | 4 |
| 35 | Mechanical and chemical investigation of the interface between tungsten-based metallizations and annealed borophosphosilicate glass. <i>Thin Solid Films</i> , 2015, 583, 170-176. | 1.8 | 7 |
| 36 | Crack deflection in multi-layered four-point bending samples. <i>International Journal of Fracture</i> , 2014, 190, 167-176. | 2.2 | 9 |

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|----|---|-----|-----------|
| 37 | Crystal orientation changes: A comparison between a crystal plasticity finite element study and experimental results. Acta Materialia, 2012, 60, 2379-2386. | 7.9 | 29 |