## Magnus Odén

List of Publications by Year in descending order

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227 papers 8,273 citations

51 h-index 77 g-index

229 all docs

229 docs citations

times ranked

229

5889 citing authors

| #  | Article  | IF  | Citations |
|----|--|-----|-----------|
| 1  | Mechanical properties and machining performance of Ti1â^'xAlxN-coated cutting tools. Surface and Coatings Technology, 2005, 191, 384-392.  | 4.8 | 475       |
| 2  | Thermal stability of arc evaporated high aluminum-content Tilâ^'xAlxN thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2002, 20, 1815-1823.   | 2.1 | 314       |
| 3  | Nanoindentation studies of singleâ€crystal (001)â€; (011)â€; and (111)â€oriented TiN layers on MgO. Journal of Applied Physics, 1996, 80, 6725-6733.   | 2.5 | 239       |
| 4  | Evolution of the residual stress state in a duplex stainless steel during loading. Acta Materialia, 1999, 47, 2669-2684.   | 7.9 | 163       |
| 5  | Nanostructure formation during deposition of TiNâ <sup>•</sup> SiNx nanomultilayer films by reactive dual magnetron sputtering. Journal of Applied Physics, 2005, 97, 114327.  | 2.5 | 145       |
| 6  | Interface structure in superhard TiN-SiN nanolaminates and nanocomposites: Film growth experiments andab initiocalculations. Physical Review B, 2007, 75, .  | 3.2 | 142       |
| 7  | xmins:mmi="http://www.w3.org/1998/Math/Math/Math/Mil" display="inline"> <mmi:msub><mmi:mrow  =""></mmi:mrow><mmi:mrow><mmi:mrow></mmi:mrow></mmi:mrow></mmi:msub> Al <mmi:math display="inline" xmins:mmi="http://www.w3.org/1998/Math/MathML"  =""><mmi:msub><mmi:mrow  =""></mmi:mrow><mmi:mrow><mmi:mrow  =""></mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mmi:mrow><mm< td=""><td>3.2</td><td>125</td></mm<></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:mrow></mmi:msub></mmi:math> | 3.2 | 125       |
| 8  | Growth of single-crystal CrN on MgO(001): Effects of low-energy ion-irradiation on surface morphological evolution and physical properties. Journal of Applied Physics, 2002, 91, 3589-3597.   | 2.5 | 117       |
| 9  | Significant elastic anisotropy in Ti1â°'xAlxN alloys. Applied Physics Letters, 2010, 97, .   | 3.3 | 107       |
| 10 | Microstructure, stress and mechanical properties of arc-evaporated Cr–C–N coatings. Thin Solid Films, 2001, 385, 190-197.  | 1.8 | 106       |
| 11 | Strain and texture analysis of coatings using high-energy x-rays. Journal of Applied Physics, 2003, 94, 697-702.   | 2.5 | 103       |
| 12 | Strain evolution during spinodal decomposition of TiAlN thin films. Thin Solid Films, 2012, 520, 5542-5549.  | 1.8 | 101       |
| 13 | Improving thermal stability of hard coating films via a concept of multicomponent alloying. Applied Physics Letters, 2011, 99, .   | 3.3 | 95        |
| 14 | Microstructure and mechanical behavior of arc-evaporated Cr–N coatings. Surface and Coatings Technology, 1999, 114, 39-51.   | 4.8 | 94        |
| 15 | Microwave assisted combustion synthesis of nanocrystalline yttria and its powder characteristics. Powder Technology, 2009, 191, 309-314.   | 4.2 | 92        |
| 16 | Epitaxial NaCl structure δ-TaNx(001): Electronic transport properties, elastic modulus, and hardness versus N/Ta ratio. Journal of Applied Physics, 2001, 90, 2879-2885.   | 2.5 | 88        |
| 17 | Thermally enhanced mechanical properties of arc evaporated Ti0.34Al0.66N/TiN multilayer coatings. Journal of Applied Physics, 2010, 108, .   | 2.5 | 86        |
| 18 | Layer formation by resputtering in Ti–Si–C hard coatings during large scale cathodic arc deposition. Surface and Coatings Technology, 2011, 205, 3923-3930.  | 4.8 | 83        |

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| 19 | Combustion synthesis of Y2O3 and Yb–Y2O3. Journal of Materials Processing Technology, 2008, 208, 415-422.  | 6.3         | 82        |
| 20 | Load sharing between austenite and ferrite in a duplex stainless steel during cyclic loading.<br>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31,<br>1557-1570.                          | 2.2         | 81        |
| 21 | Immobilization of lipase from Mucor miehei and Rhizopus oryzae into mesoporous silica—The effect of varied particle size and morphology. Colloids and Surfaces B: Biointerfaces, 2012, 100, 22-30.                                       | 5.0         | 81        |
| 22 | Phase Stability and Elasticity of TiAlN. Materials, 2011, 4, 1599-1618.  | 2.9         | 80        |
| 23 | Mechanical and thermal stability of TiN/NbN superlattice thin films. Surface and Coatings Technology, 2000, 133-134, 227-233.  | 4.8         | 79        |
| 24 | Thermal stability, microstructure and mechanical properties of Tilâ^'xZrxN thin films. Thin Solid Films, 2008, 516, 6421-6431.   | 1.8         | 76        |
| 25 | Thermal decomposition products in arc evaporated TiAlN/TiN multilayers. Applied Physics Letters, 2008, 93, .   | 3.3         | 74        |
| 26 | Cluster formation at the Si/liquid interface in Sr and Na modified Al–Si alloys. Scripta Materialia, 2016, 117, 16-19.   | 5.2         | 74        |
| 27 | Stepwise transformation behavior of the strain-induced martensitic transformation in a metastable stainless steel. Scripta Materialia, 2007, 56, 213-216.  | 5.2         | 72        |
| 28 | Rapid Synthesis of SBA-15 Rods with Variable Lengths, Widths, and Tunable Large Pores. Langmuir, 2011, 27, 4994-4999.  | 3.5         | 72        |
| 29 | Epitaxial stabilization of cubic-SiNx in TiNâ^•SiNx multilayers. Applied Physics Letters, 2006, 88, 191902.  | <b>3.</b> 3 | 71        |
| 30 | Load Partitioning and Strain-Induced Martensite Formation during Tensile Loading of a Metastable Austenitic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 1039-1048. | 2.2         | 71        |
| 31 | In situ X-ray scattering study of the cubic to hexagonal transformation of AlN in Ti1â^'xAlxN. Acta<br>Materialia, 2014, 73, 205-214.  | 7.9         | 71        |
| 32 | Fabrication of transparent yttria by HIP and the glass-encapsulation method. Journal of the European Ceramic Society, 2009, 29, 311-316.   | 5.7         | 69        |
| 33 | Pressure enhancement of the isostructural cubic decomposition in Ti1â^'xAlxN. Applied Physics Letters, 2009, 95, .   | 3.3         | 67        |
| 34 | Machining performance and decomposition of TiAlN/TiN multilayer coated metal cutting inserts. Surface and Coatings Technology, 2011, 205, 4005-4010.   | 4.8         | 67        |
| 35 | Growth and physical properties of epitaxial metastable cubic TaN(001). Applied Physics Letters, 1999, 75, 3808-3810.   | 3.3         | 65        |
| 36 | Characterization of the Induced Plastic Zone in a Single Crystal TiN(001) Film by Nanoindentation and Transmission Electron Microscopy. Journal of Materials Research, 1997, 12, 2134-2142.  | 2.6         | 64        |

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| 37 | X-ray photoelectron spectroscopy studies of Ti1-Al N (O†≠ <b>å</b> € x†≠ <b>å</b> € 0.83) high-temperature oxidation crucial role of Al concentration. Surface and Coatings Technology, 2019, 374, 923-934. | : The <sub>4.8</sub> | 64        |
| 38 | Spinodal decomposition of Ti0.33Al0.67N thin films studied by atom probe tomography. Thin Solid Films, 2012, 520, 4362-4368.  | 1.8                  | 63        |
| 39 | Microstructure evolution during the isostructural decomposition of TiAlN <i>â€"</i> A combined <i>in-situ</i> small angle x-ray scattering and phase field study. Journal of Applied Physics, 2013, 113, .  | 2.5                  | 63        |
| 40 | Shape engineering vs organic modification of inorganic nanoparticles as a tool for enhancing cellular internalization. Nanoscale Research Letters, 2012, 7, 358.  | 5.7                  | 61        |
| 41 | Grinding Effects on Surface Integrity and Mechanical Strength of WC-Co Cemented Carbides. Procedia CIRP, 2014, 13, 257-263.   | 1.9                  | 61        |
| 42 | Magnetron sputtered W–C films with C60 as carbon source. Thin Solid Films, 2003, 444, 29-37.  | 1.8                  | 60        |
| 43 | Lattice Vibrations Change the Solid Solubility of an Alloy at High Temperatures. Physical Review Letters, 2016, 117, 205502.  | 7.8                  | 60        |
| 44 | Microstructural evolution during tempering of arc-evaporated Cr–N coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 121-130.                                      | 2.1                  | 59        |
| 45 | <i>In situ</i> small-angle x-ray scattering study of nanostructure evolution during decomposition of arc evaporated TiAlN coatings. Applied Physics Letters, 2009, 94, .                                    | 3.3                  | 59        |
| 46 | Effects of Ti alloying of AlCrN coatings on thermal stability and oxidation resistance. Thin Solid Films, 2013, 534, 394-402.   | 1.8                  | 59        |
| 47 | Comparison of segregations formed in unmodified and Sr-modified Al–Si alloys studied by atom probe tomography and transmission electron microscopy. Journal of Alloys and Compounds, 2014, 611, 410-421.    | <b>5.</b> 5          | 59        |
| 48 | The effects on pore size and particle morphology of heptane additions to the synthesis of mesoporous silica SBA-15. Microporous and Mesoporous Materials, 2010, 133, 66-74.                                 | 4.4                  | 58        |
| 49 | Influence of elastic and plastic anisotropy on the flow behavior in a duplex stainless steel.<br>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 57-71.    | 2.2                  | 57        |
| 50 | Tuning hardness and fracture resistance of ZrN/Zr0.63Al0.37N nanoscale multilayers by stress-induced transformation toughening. Acta Materialia, 2015, 89, 22-31.   | 7.9                  | 57        |
| 51 | The effects of bias voltage and annealing on the microstructure and residual stress of arc-evaporated Crâ $\in$ N coatings. Surface and Coatings Technology, 1999, 120-121, 272-276.                        | 4.8                  | 55        |
| 52 | Thermomechanical properties of copper–carbon nanofibre composites prepared by spark plasma sintering and hot pressing. Composites Science and Technology, 2010, 70, 2263-2268.                              | 7.8                  | 53        |
| 53 | Pressure and temperature effects on the decomposition of arc evaporated Ti0.6Al0.4N coatings in continuous turning. Surface and Coatings Technology, 2012, 209, 203-207.                                    | 4.8                  | 52        |
| 54 | Shape engineering boosts antibacterial activity of chitosan coated mesoporous silica nanoparticle doped with silver: a mechanistic investigation. Journal of Materials Chemistry B, 2016, 4, 3292-3304.     | 5.8                  | 50        |

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| 55 | Influence of plasma nitriding on fatigue strength and fracture of a B-Mn steel. Materials Science<br>& Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 242,<br>181-194.   | 5.6         | 49        |
| 56 | Growth and characterization of TiN/SiN(001) superlattice films. Journal of Materials Research, 2007, 22, 3255-3264.   | 2.6         | 49        |
| 57 | Load partitioning between single bulk grains in a two-phase duplex stainless steel during tensile loading. Acta Materialia, 2010, 58, 734-744.  | 7.9         | 49        |
| 58 | Effect of laser hardening on the fatigue strength and fracture of a B–Mn steel. International Journal of Fatigue, 1998, 20, 389-398.  | 5.7         | 48        |
| 59 | Vibrational free energy and phase stability of paramagnetic and antiferromagnetic CrN from < i > ab initio < / i > molecular dynamics. Physical Review B, 2014, 89, .   | 3.2         | 46        |
| 60 | Temperature-dependent elastic properties of Tilâ°' <i>x</i> Al <i>x</i> N alloys. Applied Physics Letters, 2015, 107, .   | 3.3         | 46        |
| 61 | Microstructure–property relationships in arc-evaporated Cr–N coatings. Thin Solid Films, 2000, 377-378, 407-412.  | 1.8         | 44        |
| 62 | Decomposition and phase transformation in TiCrAlN thin coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .  | 2.1         | 44        |
| 63 | Tuning the Shape of Mesoporous Silica Particles by Alterations in Parameter Space: From Rods to Platelets. Langmuir, 2013, 29, 13551-13561.   | <b>3.</b> 5 | 44        |
| 64 | Growth and thermal stability of TiN/ZrAlN: Effect of internal interfaces. Acta Materialia, 2016, 121, 396-406.  | 7.9         | 44        |
| 65 | Systematic ab initio investigation of the elastic modulus in quaternary transition metal nitride alloys and their coherent multilayers. Acta Materialia, 2017, 127, 124-132.  | 7.9         | 44        |
| 66 | Deformation structures under indentations in TiN/NbN single-crystal multilayers deposited by magnetron sputtering at different bombarding ion energies. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 1983-1992. | 0.6         | 41        |
| 67 | Extended studies of degradation mechanisms in the refractory lining of a rotary kiln for iron ore pellet production. Journal of the European Ceramic Society, 2012, 32, 1519-1528.  | 5.7         | 41        |
| 68 | Surface directed spinodal decomposition at TiAlN/TiN interfaces. Journal of Applied Physics, 2013, 113, .   | 2.5         | 41        |
| 69 | High temperature phase evolution of Bolivian kaolinitic–illitic clays heated to 1250°C. Applied Clay<br>Science, 2014, 101, 100-105.  | 5.2         | 41        |
| 70 | Impact of nitrogen vacancies on the high temperature behavior of (Ti1â^'xAlx)Ny alloys. Acta Materialia, 2016, 119, 218-228.  | 7.9         | 41        |
| 71 | The Reactivity of Ti2AlC and Ti3SiC2 with SiC Fibers and Powders up to Temperatures of $1550 {\hat A}^{\circ}$ C. Journal of the American Ceramic Society, 2011, 94, 1737-1743.   | 3.8         | 40        |
| 72 | Phase-field modelling of spinodal decomposition in TiAlN including the effect of metal vacancies. Scripta Materialia, 2015, 95, 42-45.  | 5.2         | 40        |

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| 73 | Mesoporous silica and carbon based catalysts for esterification and biodiesel fabricationâ€"The effect of matrix surface composition and porosity. Applied Catalysis A: General, 2017, 533, 49-58. | 4.3 | 40        |
| 74 | Enhanced thermal stability and fracture toughness of TiAlN coatings by Cr, Nb and V-alloying. Surface and Coatings Technology, 2018, 342, 85-93.   | 4.8 | 40        |
| 75 | Influence of synthesis temperature on morphology of SBA-16 mesoporous materials with a three-dimensional pore system. Microporous and Mesoporous Materials, 2010, 129, 106-111.                    | 4.4 | 39        |
| 76 | Nanofibrillated Celluloseâ€Based Electrolyte and Electrode for Paperâ€Based Supercapacitors. Advanced Sustainable Systems, 2018, 2, 1700121.   | 5.3 | 38        |
| 77 | Deformation behaviour of a prestrained duplex stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 337, 25-38.               | 5.6 | 37        |
| 78 | Age hardening in arc-evaporated ZrAlN thin films. Scripta Materialia, 2010, 62, 739-741.   | 5.2 | 37        |
| 79 | Propylsulfonic acid functionalized mesoporous silica catalysts for esterification of fatty acids.<br>Journal of Molecular Catalysis A, 2015, 410, 253-259.   | 4.8 | 37        |
| 80 | Residual Stresses in a Nickel-Based Superalloy Introduced by Turning. Materials Science Forum, 2002, 404-407, 173-178.   | 0.3 | 36        |
| 81 | Annealing of Thermally Sprayed Ti2AlC Coatings. International Journal of Applied Ceramic Technology, 2011, 8, 74-84.   | 2.1 | 36        |
| 82 | Microstructure evolution and age hardening in (Ti,Si)(C,N) thin films deposited by cathodic arc evaporation. Thin Solid Films, 2010, 519, 1397-1403.   | 1.8 | 35        |
| 83 | Nanolabyrinthine ZrAlN thin films by self-organization of interwoven single-crystal cubic and hexagonal phases. APL Materials, $2013,1,.$  | 5.1 | 35        |
| 84 | High pressure and high temperature stabilization of cubic AlN in Ti0.60Al0.40N. Journal of Applied Physics, 2013, 113, .   | 2.5 | 34        |
| 85 | Targeted delivery of a novel anticancer compound anisomelic acid using chitosan-coated porous silica nanorods for enhancing the apoptotic effect. Biomaterials Science, 2015, 3, 103-111.          | 5.4 | 34        |
| 86 | Comparison between slip-casting and uniaxial pressing for the fabrication of translucent yttria ceramics. Journal of Materials Science, 2008, 43, 2849-2856.                                       | 3.7 | 33        |
| 87 | X-ray diffraction determination of residual stresses in functionally graded WC–Co composites.<br>International Journal of Refractory Metals and Hard Materials, 2004, 22, 177-184.                 | 3.8 | 32        |
| 88 | Synthesis and characterization of large mesoporous silica SBA-15 sheets with ordered accessible 18Ânm pores. Materials Letters, 2009, 63, 2129-2131.   | 2.6 | 31        |
| 89 | Thermal stability and mechanical properties of arc evaporated ZrN/ZrAlN multilayers. Thin Solid Films, 2010, 519, 694-699.   | 1.8 | 31        |
| 90 | Anisotropy effects on microstructure and properties in decomposed arc evaporated Ti1-xAlxN coatings during metal cutting. Surface and Coatings Technology, 2013, 235, 181-185.                     | 4.8 | 31        |

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| 91  | Structure, deformation and fracture of arc evaporated Zr–Si–N hard films. Surface and Coatings Technology, 2014, 258, 1100-1107.  | 4.8         | 31        |
| 92  | Microstructural characterization of alkali metal mediated high temperature reactions in mullite based refractories. Ceramics International, 2010, 36, 733-740.  | 4.8         | 30        |
| 93  | High Si content TiSiN films with superior oxidation resistance. Surface and Coatings Technology, 2020, 398, 126087.   | 4.8         | 30        |
| 94  | Intergranular strains and plastic deformation of an austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 334, 215-222.                             | 5.6         | 29        |
| 95  | Growth of Gd2O3 nanoparticles inside mesoporous silica frameworks. Microporous and Mesoporous Materials, 2013, 168, 221-224.  | 4.4         | 29        |
| 96  | Elastic strain evolution and $\hat{l}\mu$ -martensite formation in individual austenite grains during in situ loading of a metastable stainless steel. Materials Letters, 2008, 62, 338-340.  | 2.6         | 28        |
| 97  | Self-organized anisotropic (Zr1â^'Si )N nanocomposites grown by reactive sputter deposition. Acta Materialia, 2015, 82, 179-189.  | 7.9         | 27        |
| 98  | Exploring the high entropy alloy concept in (AlTiVNbCr)N. Thin Solid Films, 2017, 636, 346-352.   | 1.8         | 27        |
| 99  | In situx-ray diffraction study of C60 polymerization at high pressure and temperature. Physical Review B, 2002, 66, .   | 3.2         | 26        |
| 100 | Influence of chemical composition and deposition conditions on microstructure evolution during annealing of arc evaporated ZrAlN thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .    | 2.1         | 26        |
| 101 | The production of porous brick material from diatomaceous earth and Brazil nut shell ash.<br>Construction and Building Materials, 2015, 98, 257-264.  | 7.2         | 26        |
| 102 | Eutectic modification by ternary compound cluster formation in Al-Si alloys. Scientific Reports, 2019, 9, 5506.   | 3.3         | 26        |
| 103 | Temperature-dependent elastic properties of binary and multicomponent high-entropy refractory carbides. Materials and Design, 2021, 204, 109634.  | <b>7.</b> O | 26        |
| 104 | Comparison of relative permeability–fluid saturation–capillary pressure relations in the modelling of non-aqueous phase liquid infiltration in variably saturated, layered media. Advances in Water Resources, 2006, 29, 1705-1730. | 3.8         | 24        |
| 105 | Grinding-induced metallurgical alterations in the binder phase of WC-Co cemented carbides. Materials Characterization, 2017, 134, 302-310.  | 4.4         | 24        |
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