

# Angus J Wilkinson

## List of Publications by Year in descending order

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Version: 2024-02-01

190  
papers

10,595  
citations

30070

54  
h-index

37204

96  
g-index

195  
all docs

195  
docs citations

195  
times ranked

5842  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Non-destructive imaging of residual strains in GaN and their effect on optical and electrical properties using correlative light-electron microscopy. <i>Journal of Applied Physics</i> , 2022, 131, 075303.  | 2.5  | 1         |
| 2  | Macroscopic analysis of time dependent plasticity in Ti alloys. <i>Journal of Materials Science and Technology</i> , 2022, , .  | 10.7 | 0         |
| 3  | Cold dwell behaviour of Ti6Al alloy: Understanding load shedding using digital image correlation and dislocation based crystal plasticity simulations. <i>Journal of Materials Science and Technology</i> , 2022, 128, 254-272.                                 | 10.7 | 6         |
| 4  | Nanoindentation in multi-modal map combinations: a correlative approach to local mechanical property assessment. <i>Journal of Materials Research</i> , 2021, 36, 2235-2250.  | 2.6  | 24        |
| 5  | Dislocation interactions in olivine control postseismic creep of the upper mantle. <i>Nature Communications</i> , 2021, 12, 3496.   | 12.8 | 14        |
| 6  | Effect of sample thinning on strains and lattice rotations measured from Transmission Kikuchi diffraction in the SEM. <i>Ultramicroscopy</i> , 2021, 225, 113267.   | 1.9  | 0         |
| 7  | An in-situ synchrotron diffraction study of stress relaxation in titanium: Effect of temperature and oxygen on cold dwell fatigue. <i>Acta Materialia</i> , 2021, 213, 116937.  | 7.9  | 8         |
| 8  | Ex Situ and In Situ Studies of Radiation Damage Mechanisms in Zr-Nb Alloys. , 2021, , 408-434.  |      | 2         |
| 9  | J-integral analysis of the elastic strain fields of ferrite deformation twins using electron backscatter diffraction. <i>Acta Materialia</i> , 2021, 218, 117203.   | 7.9  | 12        |
| 10 | Dislocation density distribution at slip band-grain boundary intersections. <i>Acta Materialia</i> , 2020, 182, 172-183.  | 7.9  | 60        |
| 11 | On the assessment of creep damage evolution in nickel-based superalloys through correlative HR-EBSD and cECCI studies. <i>Acta Materialia</i> , 2020, 185, 13-27.   | 7.9  | 21        |
| 12 | Tension-compression asymmetry of $\epsilon$ -Ti-6Al. <i>Scripta Materialia</i> , 2020, 178, 119-123.  | 5.2  | 21        |
| 13 | Scratching the surface: Elastic rotations beneath nanoscratch and nanoindentation tests. <i>Acta Materialia</i> , 2020, 200, 116-126.   | 7.9  | 28        |
| 14 | Cold creep of titanium: Analysis of stress relaxation using synchrotron diffraction and crystal plasticity simulations. <i>Acta Materialia</i> , 2020, 199, 561-577.  | 7.9  | 22        |
| 15 | On the brittle-to-ductile transition of the as-cast TiVNbTa refractory high-entropy alloy. <i>Materialia</i> , 2020, 14, 100940.  | 2.7  | 16        |
| 16 | Dislocation interactions during low-temperature plasticity of olivine and their impact on the evolution of lithospheric strength. <i>Earth and Planetary Science Letters</i> , 2020, 543, 116349.   | 4.4  | 24        |
| 17 | Tetragonality of Fe-C martensite - a pattern matching electron backscatter diffraction analysis compared to X-ray diffraction. <i>Acta Materialia</i> , 2020, 195, 728-738.   | 7.9  | 32        |
| 18 | Thin Film Electrodes: Surface Evolution of Lithium Titanate upon Electrochemical Cycling Using a Combination of Surface Specific Characterization Techniques ( <i>Adv. Mater. Interfaces</i> 11/2020). <i>Advanced Materials Interfaces</i> , 2020, 7, 2070062. | 3.7  | 0         |

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|----|--|------|-----------|
| 19 | Surface Evolution of Lithium Titanate upon Electrochemical Cycling Using a Combination of Surface Specific Characterization Techniques. <i>Advanced Materials Interfaces</i> , 2020, 7, 1902164.   | 3.7  | 2         |
| 20 | Short communication: "Low activation, refractory, high entropy alloys for nuclear applications"™. <i>Journal of Nuclear Materials</i> , 2019, 526, 151744.   | 2.7  | 87        |
| 21 | Foreshattered electron imaging of nanoparticles in scanning electron microscopy. <i>Materials Characterization</i> , 2019, 155, 109814.  | 4.4  | 8         |
| 22 | High-Angular Resolution Electron Backscatter Diffraction as a New Tool for Mapping Lattice Distortion in Geological Minerals. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 6337-6358.                                | 3.4  | 30        |
| 23 | Mechanism of the $\beta$ -Zr to hexagonal-ZrO transformation and its impact on the corrosion performance of nuclear Zr alloys. <i>Acta Materialia</i> , 2019, 179, 328-341.  | 7.9  | 34        |
| 24 | Indexing electron backscatter diffraction patterns with a refined template matching approach. <i>Ultramicroscopy</i> , 2019, 207, 112845.  | 1.9  | 26        |
| 25 | Indexing Electron Backscatter Diffraction Patterns with a Refined Template Matching Approach. <i>Microscopy and Microanalysis</i> , 2019, 25, 1962-1963.   | 0.4  | 3         |
| 26 | Grain boundary serration in nickel alloy inconel 600: Quantification and mechanisms. <i>Acta Materialia</i> , 2019, 181, 352-366.  | 7.9  | 41        |
| 27 | Mapping the full lattice strain tensor of a single dislocation by high angular resolution transmission Kikuchi diffraction (HR-TKD). <i>Scripta Materialia</i> , 2019, 164, 36-41.   | 5.2  | 39        |
| 28 | On the depth resolution of transmission Kikuchi diffraction (TKD) analysis. <i>Ultramicroscopy</i> , 2019, 205, 5-12.  | 1.9  | 27        |
| 29 | Pattern matching analysis of electron backscatter diffraction patterns for pattern centre, crystal orientation and absolute elastic strain determination " accuracy and precision assessment. <i>Ultramicroscopy</i> , 2019, 202, 87-99. | 1.9  | 35        |
| 30 | The impact of water on slip system activity in olivine and the formation of bimodal crystallographic preferred orientations. <i>Earth and Planetary Science Letters</i> , 2019, 508, 51-61.  | 4.4  | 19        |
| 31 | Applications of multivariate statistical methods and simulation libraries to analysis of electron backscatter diffraction and transmission Kikuchi diffraction datasets. <i>Ultramicroscopy</i> , 2019, 196, 88-98.                      | 1.9  | 26        |
| 32 | Microstructural Evolution of Mechanically Deformed Polycrystalline Silicon for Kerfless Photovoltaics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800578.   | 1.8  | 3         |
| 33 | Quantitative investigation of micro slip and localization in polycrystalline materials under uniaxial tension. <i>International Journal of Plasticity</i> , 2018, 108, 88-106.   | 8.8  | 94        |
| 34 | Strong grain neighbour effects in polycrystals. <i>Nature Communications</i> , 2018, 9, 171.   | 12.8 | 92        |
| 35 | Microstructural degradation of polycrystalline superalloys from oxidized carbides and implications on crack initiation. <i>Scripta Materialia</i> , 2018, 147, 59-63.  | 5.2  | 49        |
| 36 | On the state of deformation in a polycrystalline material in three-dimension: Elastic strains, lattice rotations, and deformation mechanisms. <i>International Journal of Plasticity</i> , 2018, 106, 145-163.                           | 8.8  | 22        |

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|----|---|------|-----------|
| 37 | High Angular Resolution Electron Backscatter Diffraction Studies of Tetragonality in Fe-C Martensitic Steels. <i>Microscopy and Microanalysis</i> , 2018, 24, 962-963.  | 0.4  | 12        |
| 38 | <i>AstroEBSD</i> : exploring new space in pattern indexing with methods launched from an astronomical approach. <i>Journal of Applied Crystallography</i> , 2018, 51, 1525-1534.  | 4.5  | 28        |
| 39 | Statistical effects in X-ray diffraction lattice strain measurements of ferritic steel using crystal plasticity. <i>Materials and Design</i> , 2018, 153, 159-165.  | 7.0  | 8         |
| 40 | On the Influence of Nb/Ti Ratio on Environmentally-Assisted Crack Growth in High-Strength Nickel-Based Superalloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 3923-3937. | 2.2  | 7         |
| 41 | Grain Boundary Serration in Nickel-Based Superalloy Inconel 600: Generation and Effects on Mechanical Behavior. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 4324-4342.     | 2.2  | 53        |
| 42 | Environmentally-assisted grain boundary attack as a mechanism of embrittlement in a nickel-based superalloy. <i>Acta Materialia</i> , 2017, 126, 361-371.   | 7.9  | 107       |
| 43 | Cross-correlation based high resolution electron backscatter diffraction and electron channelling contrast imaging for strain mapping and dislocation distributions in InAlN thin films. <i>Acta Materialia</i> , 2017, 125, 125-135.   | 7.9  | 45        |
| 44 | On the microtwinning mechanism in a single crystal superalloy. <i>Acta Materialia</i> , 2017, 135, 314-329.   | 7.9  | 102       |
| 45 | Diffraction effects and inelastic electron transport in angle-resolved microscopic imaging applications. <i>Journal of Microscopy</i> , 2017, 267, 330-346.   | 1.8  | 13        |
| 46 | Growth of $\{11\bar{2}\}$ twins in titanium: A combined experimental and modelling investigation of the local state of deformation. <i>Acta Materialia</i> , 2017, 126, 221-235.  | 7.9  | 79        |
| 47 | Applications of Multivariate Statistical Methods to Analysis of Electron Backscatter Diffraction and Transmission Kikuchi Diffraction Datasets. <i>Microscopy and Microanalysis</i> , 2017, 23, 544-545.                                | 0.4  | 0         |
| 48 | Size effects resolve discrepancies in 40 years of work on low-temperature plasticity in olivine. <i>Science Advances</i> , 2017, 3, e1701338.   | 10.3 | 51        |
| 49 | Quantitative imaging of anti-phase domains by polarity sensitive orientation mapping using electron backscatter diffraction. <i>Scientific Reports</i> , 2017, 7, 10916.  | 3.3  | 20        |
| 50 | Mapping Anti-phase Domains by Polarity Sensitive Orientation Imaging Using Electron Backscatter Diffraction. <i>Microscopy and Microanalysis</i> , 2017, 23, 1522-1523.   | 0.4  | 0         |
| 51 | On the composition of microtwins in a single crystal nickel-based superalloy. <i>Scripta Materialia</i> , 2017, 127, 37-40.   | 5.2  | 59        |
| 52 | On the role of boron on improving ductility in a new polycrystalline superalloy. <i>Acta Materialia</i> , 2017, 124, 489-500.   | 7.9  | 90        |
| 53 | A synchrotron X-ray diffraction study of non-proportional strain-path effects. <i>Acta Materialia</i> , 2017, 124, 290-304.   | 7.9  | 30        |
| 54 | Dislocation Interactions in Olivine Revealed by HR-EBSD. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 7659-7678.  | 3.4  | 26        |

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|----|--|-----|-----------|
| 55 | Effect of sliding speed and counterface properties on the tribo-oxidation of brush seal material under dry sliding conditions. <i>Tribology International</i> , 2016, 96, 373-381.   | 5.9 | 28        |
| 56 | Microstrain distribution mapping on CuInSe <sub>2</sub> thin films by means of electron backscatter diffraction, X-ray diffraction, and Raman microspectroscopy. <i>Ultramicroscopy</i> , 2016, 169, 89-97.  | 1.9 | 12        |
| 57 | Assessment of X-ray diffraction and crystal plasticity lattice strain evolutions under biaxial loading. <i>International Journal of Plasticity</i> , 2016, 83, 1-18.   | 8.8 | 28        |
| 58 | On the effects of reorientation and shear transfer during twin formation: Comparison between high resolution electron backscatter diffraction experiments and a crystal plasticity finite element model. <i>International Journal of Plasticity</i> , 2016, 84, 160-182. | 8.8 | 54        |
| 59 | Microstrain distributions in polycrystalline thin films measured by X-ray microdiffraction. <i>Journal of Applied Crystallography</i> , 2016, 49, 632-635.   | 4.5 | 10        |
| 60 | Tutorial: Crystal orientations and EBSD " Or which way is up?. <i>Materials Characterization</i> , 2016, 117, 113-126.   | 4.4 | 121       |
| 61 | Geometrically necessary dislocation densities in olivine obtained using high-angular resolution electron backscatter diffraction. <i>Ultramicroscopy</i> , 2016, 168, 34-45.   | 1.9 | 72        |
| 62 | Sample size effects on grain boundary sliding. <i>Scripta Materialia</i> , 2016, 114, 17-20.   | 5.2 | 12        |
| 63 | A study of dislocation transmission through a grain boundary in hcp Ti-6Al using micro-cantilevers. <i>Acta Materialia</i> , 2016, 103, 416-423.   | 7.9 | 26        |
| 64 | Assessment of residual stress fields at deformation twin tips and the surrounding environments. <i>Acta Materialia</i> , 2016, 105, 219-231.   | 7.9 | 70        |
| 65 | Measurements of stress fields near a grain boundary: Exploring blocked arrays of dislocations in 3D. <i>Acta Materialia</i> , 2015, 96, 229-236.   | 7.9 | 76        |
| 66 | Characterization of Elastic Strain Field and Geometrically Necessary Dislocation Distribution in Stress Corrosion Cracking of 316 Stainless Steels by Transmission Kikuchi Diffraction. <i>Microscopy and Microanalysis</i> , 2015, 21, 605-606.                         | 0.4 | 2         |
| 67 | Prismatic, basal, and $\{10\bar{1}0\}$ slip strengths of commercially pure Zr by micro-cantilever tests. <i>Acta Materialia</i> , 2015, 96, 249-257.   | 7.9 | 139       |
| 68 | High-Resolution Electron Backscatter Diffraction in III-Nitride Semiconductors. <i>Microscopy and Microanalysis</i> , 2015, 21, 2217-2218.   | 0.4 | 2         |
| 69 | Evolution of intragranular stresses and dislocation densities during cyclic deformation of polycrystalline copper. <i>Acta Materialia</i> , 2015, 94, 193-204.   | 7.9 | 57        |
| 70 | On the mechanistic basis of deformation at the microscale in hexagonal close-packed metals. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20140881.  | 2.1 | 128       |
| 71 | A discrete dislocation plasticity study of the micro-cantilever size effect. <i>Acta Materialia</i> , 2015, 88, 271-282.   | 7.9 | 63        |
| 72 | Using transmission Kikuchi diffraction to study intergranular stress corrosion cracking in type 316 stainless steels. <i>Micron</i> , 2015, 75, 1-10.  | 2.2 | 39        |

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|----|--|-----|-----------|
| 73 | The orientation and strain dependence of dislocation structure evolution in monotonically deformed polycrystalline copper. <i>International Journal of Plasticity</i> , 2015, 69, 102-117.   | 8.8 | 82        |
| 74 | The effect of pattern overlap on the accuracy of high resolution electron backscatter diffraction measurements. <i>Ultramicroscopy</i> , 2015, 155, 62-73.   | 1.9 | 31        |
| 75 | A synchrotron X-ray diffraction study of in situ biaxial deformation. <i>Acta Materialia</i> , 2015, 90, 46-58.  | 7.9 | 48        |
| 76 | Measurement of probability distributions for internal stresses in dislocated crystals. <i>Applied Physics Letters</i> , 2014, 105, .   | 3.3 | 30        |
| 77 | Electron Channeling Contrast Imaging of Defects in III-Nitride Semiconductors. <i>Microscopy and Microanalysis</i> , 2014, 20, 1024-1025.  | 0.4 | 0         |
| 78 | A review of advances and challenges in EBSD strain mapping. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014, 55, 012020.  | 0.6 | 32        |
| 79 | In-service materials support for safety critical applications – A case study of a high strength Ti-alloy using advanced experimental and modelling techniques. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 599, 166-173. | 5.6 | 27        |
| 80 | Dislocations in deformed Ti-6Al-4V micro-cantilevers. <i>Acta Materialia</i> , 2014, 76, 127-134.  | 7.9 | 41        |
| 81 | Slip band-grain boundary interactions in commercial-purity titanium. <i>Acta Materialia</i> , 2014, 76, 1-12.  | 7.9 | 258       |
| 82 | Simulation of deformation twins and their interactions with cracks. <i>Computational Materials Science</i> , 2014, 89, 224-232.  | 3.0 | 12        |
| 83 | Comparison of Techniques for Strain Measurements in CuInSe <sub>2</sub> Absorber Layers of Thin-film Solar Cells. <i>Microscopy and Microanalysis</i> , 2014, 20, 1464-1465.   | 0.4 | 0         |
| 84 | Direct Detection of Electron Backscatter Diffraction Patterns. <i>Physical Review Letters</i> , 2013, 111, 065506.   | 7.8 | 46        |
| 85 | Electron Backscatter Diffraction: An Important Tool for Analyses of Structure-Property Relationships in Thin-Film Solar Cells. <i>Jom</i> , 2013, 65, 1222-1228.   | 1.9 | 8         |
| 86 | Probing Deformation and Revealing Microstructural Mechanisms with Cross-Correlation-Based, High-Resolution Electron Backscatter Diffraction. <i>Jom</i> , 2013, 65, 1245-1253.   | 1.9 | 26        |
| 87 | Assessing the precision of strain measurements using electron backscatter diffraction – part 1: Detector assessment. <i>Ultramicroscopy</i> , 2013, 135, 126-135.  | 1.9 | 43        |
| 88 | Evolution of dislocation density distributions in copper during tensile deformation. <i>Acta Materialia</i> , 2013, 61, 7227-7239.   | 7.9 | 224       |
| 89 | Assessing the precision of strain measurements using electron backscatter diffraction – Part 2: Experimental demonstration. <i>Ultramicroscopy</i> , 2013, 135, 136-141.   | 1.9 | 27        |
| 90 | Measurement of geometrically necessary dislocation density with high resolution electron backscatter diffraction: Effects of detector binning and step size. <i>Ultramicroscopy</i> , 2013, 125, 1-9.  | 1.9 | 215       |

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|-----|--|------|-----------|
| 91  | Mapping type III intragranular residual stress distributions in deformed copper polycrystals. <i>Acta Materialia</i> , 2013, 61, 5895-5904.  | 7.9  | 42        |
| 92  | Controlling the Orientation, Edge Geometry, and Thickness of Chemical Vapor Deposition Graphene. <i>ACS Nano</i> , 2013, 7, 1351-1359.   | 14.6 | 182       |
| 93  | Strain Mapping with Electron Back Scatter Diffraction: Sensitivity Studies and Pattern Remapping. <i>Microscopy and Microanalysis</i> , 2013, 19, 684-685.   | 0.4  | 0         |
| 94  | Rapid Nondestructive Analysis of Threading Dislocations in Wurtzite Materials Using the Scanning Electron Microscope. <i>Physical Review Letters</i> , 2012, 108, 135503.  | 7.8  | 56        |
| 95  | Transmission electron microscopy of deformed Ti-6Al-4V micro-cantilevers. <i>Philosophical Magazine</i> , 2012, 92, 3290-3314.   | 1.6  | 19        |
| 96  | Use of a dislocation-based boundary element model to extract crack growth rates from depth distributions of intergranular stress corrosion cracks. <i>Acta Materialia</i> , 2012, 60, 5101-5108.                                       | 7.9  | 6         |
| 97  | Determination of the complete microscale residual stress tensor at a subsurface carbide particle in a single-crystal superalloy from free-surface EBSD. <i>Acta Materialia</i> , 2012, 60, 5300-5310.                                  | 7.9  | 28        |
| 98  | Strains, planes, and EBSD in materials science. <i>Materials Today</i> , 2012, 15, 366-376.  | 14.2 | 286       |
| 99  | Geometrically necessary dislocation density distributions in cyclically deformed Ti-6Al-4V. <i>Acta Materialia</i> , 2012, 60, 5516-5525.  | 7.9  | 61        |
| 100 | Stress fields and geometrically necessary dislocation density distributions near the head of a blocked slip band. <i>Acta Materialia</i> , 2012, 60, 5773-5782.  | 7.9  | 180       |
| 101 | Crystal plasticity analysis of micro-deformation, lattice rotation and geometrically necessary dislocation density. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012, 468, 2509-2531. | 2.1  | 98        |
| 102 | Accumulation of geometrically necessary dislocations near grain boundaries in deformed copper. <i>Philosophical Magazine Letters</i> , 2012, 92, 580-588.  | 1.2  | 50        |
| 103 | Local deformation patterns in Ti-6Al-4V under tensile, fatigue and dwell fatigue loading. <i>International Journal of Fatigue</i> , 2012, 43, 111-119.   | 5.7  | 80        |
| 104 | Nanoindentation and micro-mechanical fracture toughness of electrodeposited nanocrystalline Ni-W alloy films. <i>Thin Solid Films</i> , 2012, 520, 4369-4372.  | 1.8  | 42        |
| 105 | High resolution electron backscatter diffraction measurements of elastic strain variations in the presence of larger lattice rotations. <i>Ultramicroscopy</i> , 2012, 114, 82-95.   | 1.9  | 160       |
| 106 | Assessment of lattice strain, rotation and dislocation content using electron back-scatter diffraction. <i>Journal of Physics: Conference Series</i> , 2011, 326, 012004.  | 0.4  | 5         |
| 107 | Mechanical properties of ion-implanted tungsten-5wt% tantalum. <i>Physica Scripta</i> , 2011, T145, 014076.  | 2.5  | 45        |
| 108 | Measurement of residual elastic strain and lattice rotations with high resolution electron backscatter diffraction. <i>Ultramicroscopy</i> , 2011, 111, 1395-1404.   | 1.9  | 149       |

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|-----|--|-----|-----------|
| 109 | A microcantilever investigation of size effect, solid-solution strengthening and second-phase strengthening for $\alpha$ -prism slip in $\alpha$ -Ti. <i>Acta Materialia</i> , 2011, 59, 5970-5981.  | 7.9 | 92        |
| 110 | Geometrically necessary dislocation density distributions in Ti-6Al-4V deformed in tension. <i>Acta Materialia</i> , 2011, 59, 6489-6500.  | 7.9 | 113       |
| 111 | High resolution electron back-scatter diffraction analysis of thermally and mechanically induced strains near carbide inclusions in a superalloy. <i>Acta Materialia</i> , 2011, 59, 263-272.  | 7.9 | 92        |
| 112 | Micro-mechanical measurements of fracture toughness of bismuth embrittled copper grain boundaries. <i>Philosophical Magazine Letters</i> , 2011, 91, 394-400.  | 1.2 | 66        |
| 113 | Micro-cantilever testing of $\alpha$ -prismatic slip in commercially pure Ti. <i>Philosophical Magazine</i> , 2011, 91, 1137-1149.   | 1.6 | 29        |
| 114 | Factors affecting the accuracy of high resolution electron backscatter diffraction when using simulated patterns. <i>Ultramicroscopy</i> , 2010, 110, 1443-1453.   | 1.9 | 120       |
| 115 | Dislocation modeling of quasi-static crack propagation in an elasto-plastic medium. <i>International Journal of Fracture</i> , 2010, 164, 103-115.   | 2.2 | 3         |
| 116 | Electron backscatter diffraction study of dislocation content of a macrozone in hot-rolled Ti-6Al-4V alloy. <i>Scripta Materialia</i> , 2010, 62, 639-642.   | 5.2 | 130       |
| 117 | High-resolution electron backscatter diffraction: An emerging tool for studying local deformation. <i>Journal of Strain Analysis for Engineering Design</i> , 2010, 45, 365-376.   | 1.8 | 73        |
| 118 | Determination of elastic strain fields and geometrically necessary dislocation distributions near nanoindenters using electron back scatter diffraction. <i>Philosophical Magazine</i> , 2010, 90, 1159-1177.                              | 1.6 | 259       |
| 119 | The effect of crystal orientation on the indentation response of commercially pure titanium: experiments and simulations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010, 466, 695-719. | 2.1 | 155       |
| 120 | Elastic strain tensor measurement using electron backscatter diffraction in the SEM. <i>Journal of Electron Microscopy</i> , 2010, 59, S155-S163.  | 0.9 | 32        |
| 121 | Investigation of elastic properties of single-crystal $\alpha$ -Ti using microcantilever beams. <i>Philosophical Magazine Letters</i> , 2010, 90, 503-512.   | 1.2 | 27        |
| 122 | Measuring anisotropy in Young's modulus of copper using microcantilever testing. <i>Journal of Materials Research</i> , 2009, 24, 3268-3276.   | 2.6 | 94        |
| 123 | Nanoindentation study of slip transfer phenomenon at grain boundaries. <i>Journal of Materials Research</i> , 2009, 24, 607-615.   | 2.6 | 107       |
| 124 | Measuring Local Mechanical Properties using FIB Machined Cantilevers. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1185, 13.   | 0.1 | 7         |
| 125 | Mapping strains at the nanoscale using electron back scatter diffraction. <i>Superlattices and Microstructures</i> , 2009, 45, 285-294.  | 3.1 | 40        |
| 126 | Anisotropy in the plastic flow properties of single-crystal $\alpha$ titanium determined from micro-cantilever beams. <i>Acta Materialia</i> , 2009, 57, 5693-5705.  | 7.9 | 257       |



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|-----|--|-----|-----------|
| 127 | Characterisation of plastic zones around crack-tips in pure single-crystal tungsten using electron backscatter diffraction. IOP Conference Series: Materials Science and Engineering, 2009, 3, 012015.       | 0.6 | 6         |
| 128 | Strain Mapping Using Electron Backscatter Diffraction. , 2009, , 231-249.  |     | 25        |
| 129 | Ductileâ€“brittle transition of polycrystalline iron and ironâ€“chromium alloys. Journal of Nuclear Materials, 2008, 378, 305-311.   | 2.7 | 28        |
| 130 | Electron Channeling and Ion Channeling Contrast Imaging of Dislocations in Nitride Thin Films. Microscopy and Microanalysis, 2008, 14, 1194-1195.  | 0.4 | 2         |
| 131 | Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films. Physical Review B, 2007, 75, .   | 3.2 | 69        |
| 132 | Brittleâ€“ductile transitions in vanadium and ironâ€“chromium. Journal of Nuclear Materials, 2007, 367-370, 637-643.   | 2.7 | 31        |
| 133 | Quasiâ€“cleavage fracture planes in spheroidized A533B steel. Journal of Microscopy, 2007, 227, 248-253.   | 1.8 | 12        |
| 134 | Low-temperature fracture mechanisms in a spheroidised reactor pressure vessel steel. International Journal of Fracture, 2007, 144, 121-129.  | 2.2 | 6         |
| 135 | Experimental and computational studies of low cycle fatigue crack nucleation in a polycrystal. International Journal of Plasticity, 2007, 23, 273-295.   | 8.8 | 207       |
| 136 | Strain Tensor Mapping at the Nanoscale using Electron Back Scatter Diffraction. Microscopy and Microanalysis, 2006, 12, 66-67.   | 0.4 | 0         |
| 137 | Characterisation of Epitaxial Lateral Overgrown GaN by Electron Backscatter Diffraction Correlated with Cross-Sectional Cathodoluminescence Spectroscopy. Microscopy and Microanalysis, 2006, 12, 1516-1517. | 0.4 | 0         |
| 138 | Quantification of plastic strain of stainless steel and nickel alloy by electron backscatter diffraction. Acta Materialia, 2006, 54, 539-548.  | 7.9 | 210       |
| 139 | High-resolution elastic strain measurement from electron backscatter diffraction patterns: New levels of sensitivity. Ultramicroscopy, 2006, 106, 307-313.   | 1.9 | 555       |
| 140 | Characterizing dislocation structure evolution during cyclic deformation using electron channelling contrast imaging. Philosophical Magazine, 2006, 86, 4965-4981.   | 1.6 | 26        |
| 141 | High resolution mapping of strains and rotations using electron backscatter diffraction. Materials Science and Technology, 2006, 22, 1271-1278.  | 1.6 | 275       |
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