

Ali Gholinia
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Materials Engineering
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Overview

Dr. Ali Gholinia is a Research Fellow working in the Department of Materials at the University of Manchester. He obtained his PhD from Materials Science Centre at the University of Manchester. After post-doctoral positions at the University of Manchester in UK and TU-Delft in the Netherlands, he worked at HKL and Oxford Instruments in Denmark on development of electron backscatter diffraction (EBSD) technique and its applications, before taking up his current position in Manchester.

His expertise include materials characterisation and processing. He has been working with in the field of electron microscopy for over 20 years. His materials characterisation expertise include microstructure and phase analysis using scanning electron microscopy (SEM), focused ion beam (FIB) and electron backscatter diffraction (EBSD). His research focus is on 3D correlative and multi-modal microstructure characterisation of materials between X-ray computed tomography and serial sectioning techniques in SEM. Furthermore, he is interested in linking materials microstructure and mechanical properties using in-situ tensile deformation in SEM.

Qualifications

Doctor of Philosophy, The University of Manchester

1 Oct 1992 → 1 Oct 1994

Award Date: 1 Oct 1994

Master of Science, The University of Manchester

1 Oct 1990 → 1 Oct 1992

Award Date: 1 Oct 1992

Bachelor of Science, Middle East Technical University

1 Oct 1984 → 1 Oct 1988

Award Date: 1 Oct 1988

Employment

Research Fellow

Research Fellow

Materials Engineering

The University of Manchester

1 Aug 2019 → present

Applications group manager

Oxford Instruments NanoAnalysis

High Wycombe, United Kingdom

1 Jan 2002 → 1 Nov 2008

Research Scientist

Technische Universiteit Delft

Delft, Netherlands

1 Jan 2001 → 1 Jan 2002

Research Associate

University of Manchester (UOM)

Manchester, United Kingdom

1 Oct 1994 → 1 Jan 2001

Research outputs

Grain size assessment using EBSD on heterogeneous additively manufactured microstructures

del Gaudio, J., Donoghue, J., Withers, P. J., Garner, A., Mingard, K., Gee, M. & Gholinia, A., 6 Sept 2024, In: IOP Conference Series: Materials Science and Engineering. 1310, 1, 012028.

Understanding fatigue crack propagation pathways in Additively Manufactured AlSi10Mg

Rangaraj, S., Ahmed, S., Davis, A., Withers, P. J. & Gholinia, A., 13 Aug 2024, (E-pub ahead of print) *IOP Conference Series: Materials Science and Engineering*. 1 ed. Vol. 1310. (IOP Conference Series: Materials Science and Engineering).

Exploration of fs-laser ablation parameter space for 2D/3D imaging of soft and hard materials by tri-beam microscopy

Gholinia, A., Donoghue, J., Garner, A., Curd, M., Lawson, M. J., Winiarski, B., Geurts, R., Withers, P. J. & Burnett, T. L., 1 Mar 2024, In: *Ultramicroscopy*. 257, 113903.

A new approach to three-dimensional microstructure reconstruction of a polycrystalline solar cell using high-efficiency Cu(In,Ga)Se₂

Song, C. Y., Maiberg, M., Kempa, H., Witte, W., Hariskos, D., Abou-Ras, D., Moeller, B., Scheer, R. & Gholinia, A., 23 Jan 2024, In: *Scientific Reports*. 14, 1, 2036.

Identification, classification and characterisation of hydrides in Zr alloys

Maric, M., Thomas, R., Davis, A., Lunt, D., Donoghue, J., Gholinia, A., De Graef, M., Ungar, T., Barberis, P., Bourlier, F., Frankel, P., Shanthraj, P. & Preuss, M., 1 Jan 2024, In: *Scripta Materialia*. 238, 115768.

Phase transitions in alumina films during post-sparking anodising of Al alloys

Bousser, E., Rogov, A., Shashkov, P., Gholinia, A., Laugel, N., Slater, T. J. A., Withers, P. J., Matthews, A. & Yerokhin, A., 4 Dec 2022, In: *Acta Materialia*. 118587.

Optimising large-area crystal orientation mapping of nanoscale β phase in $\alpha+\beta$ titanium alloys using EBSD

Davis, A., Zeng, X., Thomas, R., Kennedy, J., Donoghue, J., Gholinia, A., Prangnell, P. & Da Fonseca, J. Q., 7 Oct 2022, In: *Materials Characterization*. 112371.

Exploring domain continuity across BaTiO₃ grain boundaries: Theory meets experiment

O'Reilly, T., Holsgrove, K., Gholinia, A., Woodruff, D., Bell, A., Huber, J. & Arredondo, M., 15 Aug 2022, In: *Acta Materialia*. 235, 12 p., 118096.

X-ray computed tomographic and focused ion beam/electron microscopic investigation of coating defects in niobium-coated copper superconducting radio-frequency cavities.

Aliasghari, S., Skeldon, P., Zhou, X., Gholinia, A., Zhang, X., Valizadeh, R., Pira, C., Junginger, T., Burt, G. & Withers, P., 15 Nov 2021, In: *Materials Chemistry and Physics*.

Resolving physical interactions between bacteria and nanotopographies with focused ion beam scanning electron microscopy

Jenkins, J., Ishak, M. I., Eales, M., Gholinia, A., Kulkarni, S., Keller, T. F., May, P. W., Nobbs, A. H. & Su, B., 23 Jul 2021, In: *iScience*. 24, 7, 102818.

Correction of artefacts associated with large area EBSD

Gholinia, A., Winiarski, B., Mingard, K., Gee, M. & Withers, P., 14 May 2021, In: *Ultramicroscopy*. 226, 113315.

Antibacterial effects of nanopillar surfaces are mediated by cell impedance, penetration and induction of oxidative stress

Jenkins, J., Mantell, J., Neal, C., Gholinia, A., Verkade, P., Nobbs, A. H. & Su, B., 18 Apr 2020, In: *Nature Communications*. 11, 1

Coupled Broad Ion Beam-Scanning Electron Microscopy (BIB-SEM) for polishing and three dimensional (3D) Serial Section Tomography (SST)

Gholinia, A., Withers, P. (Collaborator), Taylor, K. (Collaborator), Curd, M. (Collaborator), Bousser, E. (Collaborator), Hosman, T. (Collaborator), Coyle, S. (Collaborator), Hassel-Shearer, M. (Collaborator) & Hunt, J. (Collaborator), 2020, In: *Ultramicroscopy*. 214, p. 1-13 13 p., <https://doi.org/10.1016/j.ultramic.2020.112989>.

Self-Nanostructuring in SrTiO₃: A Novel Strategy for Enhancement of Thermoelectric Response in Oxides

Azough, F., Gholinia, A., Alvarez-ruiz, D. T., Duran, E., Kepaptsoglou, D. M., Eggeman, A., Ramasse, Q. M. & Freer, R., 11 Sept 2019, In: ACS applied materials & interfaces. 11, 36, p. 32833-32843 11 p.

Incorporation of halloysite nanotubes into forsterite surface layer during plasma electrolytic oxidation of AM50 Mg alloy

Mingo, B., Guo, Y., Němcová, A., Gholinia, A., Mohedano, M., Sun, M., Matthews, A. & Yerokhin, A., 10 Mar 2019, In: Electrochimica Acta. 299, p. 772-788 17 p.

Characterization of Materials Properties by EBSD, EDS and AFM

Goulden, J., Pinard, P., Gholinia, A., Kocun, M. & Proksch, R., Aug 2018, In: Microscopy and Microanalysis. 24, S1, p. 594-595 2 p.

Industrial Gear Oils: Tribological Performance and Subsurface Changes

Adebogun, A., Hudson, R., Breakspear, A., Warrens, C., Gholinia, A., Matthews, A. & Withers, P., Jun 2018, In: Tribology Letters. 66, 2, 65.

Co-precipitation on the basal and prismatic planes in Mg–Gd–Ag–Zr alloy subjected to over-ageing

Li, J., Hage, F. S., Gholinia, A., Xie, P., Zhang, Y., Wu, Y., Peng, L., Haigh, S. J., Ramasse, Q. M. & Schumacher, P., 1 Jan 2018, *Magnesium Technology 2018*. Solanki, K. N., Joshi, V., Neelameggham, N. R. & Orlov, D. (eds.). Springer Nature, p. 379-383 5 p. (Minerals, Metals and Materials Series; vol. Part F7).

Anomalous twin boundaries in two dimensional materials

Rooney, A., Li, Z., Zhao, W., Gholinia, A., Kozikov, A., Auton, G., Ding, F., Gorbachev, R., Young, R. & Haigh, S., 2018, In: Nature Communications. 9, p. 3597 7 p., 3597.

Quaternion-based disorientation coloring of orientation maps

Thomsen, K., Mehnert, K., Trimby, P. W. & Gholinia, A., Nov 2017, In: Ultramicroscopy. 182, p. 62-67 6 p.

Multi-scale 3D characterisation of porosity and organic matter in shales with variable TOC content and thermal maturity: Examples from the Lublin and Baltic Basins, Poland and Lithuania

Ma, L., Taylor, K., Dowe, P., Courtois, L., Gholinia, A. & Lee, P., 7 Aug 2017, In: International Journal of Coal Geology. 180, p. 100-112

Time-lapse lab-based X-ray nano-CT study of corrosion damage

Lyon, S., Liu, Y., Zhou, X., Withers, P., Gholinia, A. & Burnett, T., Jul 2017, In: Journal of Microscopy. 267, 1, p. 98-106 9 p.

CH₃NH₃PbI₃ films prepared by combining 1- and 2-step deposition: how crystal growth conditions affect properties

Mokhtar, M. Z., Chen, M., Whittaker, E., Hamilton, B., Aristidou, N., Ramadan, S., Gholinia, A., Haque, S. A., O'Brien, P. & Saunders, B., 17 Feb 2017, In: Physical Chemistry Chemical Physics. 19, p. 7204-7214

An organic coating pigmented with strontium aluminium polyphosphate for corrosion protection of zinc alloy coated steel

Liu, Y., Zhou, X., Lyon, S. B., Emad, R., Hashimoto, T., Gholinia, A., Thompson, G. E., Graham, D., Gibbon, S. R. & Francis, D., Jan 2017, In: Progress in Organic Coatings. 102, p. 29-36 7 p.

Broad Ion Beam Serial Section Tomography

Winiarski, B., Gholinia, A., Mingard, K., Gee, M., Thompson, G. & Withers, P., Jan 2017, In: Ultramicroscopy. 172, p. 52-64 13 p.

Plasmon-induced nanoscale quantised conductance filaments

Kravets, V. G., Marshall, O. P., Schedin, F., Rodriguez, F. J., Zhukov, A. A., Gholinia, A., Prestat, E., Haigh, S. J. & Grigorenko, A. N., 2017, In: Scientific Reports. 7, 1, 2878.

An investigation of the corrosion inhibitive layers generated from lithium oxalate-containing organic coating on AA2024-T3 aluminium alloy

Liu, Y., Visser, P., Zhou, X., Lyon, S., Hashimoto, T., Gholinia, A., Thompson, G., Smyth, G., Gibbon, S., Graham, D., Mol, J. M. C. & Terry, H., 6 Jul 2016, In: *Surface and Interface Analysis*. 48, 8, p. 798–803

Effects of reagent purity on plasma electrolytic oxidation of titanium in an aluminate-phosphate electrolyte

Aliasghari, S., Němcová, A., Čížek, J., Gholinia, A., Skeldon, P. & Thompson, G. E., 8 Mar 2016, In: *Transactions of the Institute of Metal Finishing*. 94, 1, p. 32-42 11 p.

Protective film formation on AA2024-T3 aluminium alloy by leaching of lithium carbonate from an organic coating

Liu, Y., Visser, P., Zhou, X., Lyon, S. B., Hashimoto, T., Curioni, M., Gholinia, A., Thompson, G. E., Smyth, G., Gibbon, S. R., Graham, D., Mol, J. M. & Terry, H., 9 Dec 2015, In: *Electrochemical Society. Journal*. 163, 3, p. 45-53 8 p.

Protective Film Formation on AA2024-T3 Aluminum Alloy by Leaching of Lithium Carbonate from an Organic Coating

Liu, Y., Visser, P., Zhou, X., Lyon, S., Hashimoto, T., Curioni, M., Thompson, G., Gholinia, A., Smyth, G., Gibbon, S., Graham, D. & Terry, H., 9 Dec 2015, In: *Journal of the Electrochemical Society*. 163, 3, p. C45-C53 9 p.

Large volume serial section tomography by Xe Plasma FIB dual beam microscopy

Burnett, T., Kelley, R., Winiarski, B., Contreras, L., Daly, M., Gholinia, A., Burke, M. G. & Withers, P., 10 Nov 2015, In: *Ultramicroscopy*. 161, p. 119-129 11 p.

Cross sectional STEM imaging and analysis of multilayered two dimensional crystal heterostructure devices

Haigh, S. J., Rooney, A. P., Prestat, E., Withers, F., Del Pozo Zamudio, O., Mishchenko, A., Gholinia, A., Watanabe, K., Taniguchi, T., Tartakovskii, A. I., Geim, A. K. & Novoselov, K. S., 1 Aug 2015, In: *Microscopy and Microanalysis*. 21, S3, p. 107-108 2 p., 0054.

Using transmission Kikuchi diffraction to study intergranular stress corrosion cracking in type 316 stainless steels

Meisnar, M., Vilalta-Clemente, A., Gholinia, A., Moody, M., Wilkinson, A. J., Huin, N. & Lozano-Perez, S., 1 Aug 2015, In: *Micron*. 75, p. 1-10 10 p.

Light-emitting diodes by band-structure engineering in van der Waals heterostructures.

Withers, F., {Del Pozo-Zamudio}, O., Mishchenko, A., Rooney, A. P., Gholinia, A., Watanabe, K., Taniguchi, T., Haigh, S. J., Geim, A. K., Tartakovskii, A. I. & Novoselov, K. S., Feb 2015, In: *Nature Materials*. 14, 3, p. 301-306 6 p.

Identifying suboxide grains at the metal-oxide interface of a corroded Zr-1.0%Nb alloy using (S)TEM, transmission-EBSD and EELS

Hu, J., Garner, A., Ni, N., Gholinia, A., Nicholls, R., Lozano-Perez, S., Frankel, P., Preuss, M. & Grovenor, C., 2015, In: *Micron*. 69, p. 35-42 7 p.

Electronic properties of graphene encapsulated with different two-dimensional atomic crystals

Kretinin, A., Cao, Y., Tu, J. S., Yu, G. L., Jalil, R., Novoselov, K. S., Haigh, S. J., Gholinia, A., Mishchenko, A., Lozada Hidalgo, M., Georgiou, T., Woods, C. R., Withers, F., Blake, P., Eda, G., Wirsig, A., Hucho, C., Watanabe, K., Taniguchi, T. & Geim, A. K. & 1 others, Gorbachev, R. V., 11 Jun 2014, In: *Nano Letters*. 14, 6, p. 3270-3276 6 p.

Correlative Tomography

Burnett, T., McDonald, S., Gholinia, A., Geurts, R., Janus, M., Slater, T., Haigh, S., Ornek, C., Almuaili, F., Engelberg, D., Thompson, G. & Withers, P. J., 16 Apr 2014, In: *Scientific Reports*. 4, 4711, p. 1-6 5 p., 4711.

In-situ EBSD phase transformation and recrystallisation

Ubhi, H. S., Parsons, J., Othen, N., Campbell, S., Poole, R. & Gholinia, A., 1 Jan 2014, In: *Journal of Physics: Conference Series*. 522, 1, 4 p., 012011.

Metrology of three-dimensional techniques in focused ion beam microscopy

Jones, H. G., Mingard, K. P., Cox, D. C., Winiarski, B. & Gholinia, A., 1 Jan 2014, *3DMS 2014 - Proceedings of the 2nd International Congress on 3D Materials Science*. Pollock, T., Poulsen, H. F., Rollett, A., Uchic, M., Rollett, A., Bernard, D.,

Rollett, A., Buffiere, J.-Y., Rollett, A. & Pollock, T. (eds.). John Wiley & Sons Ltd, p. 119-124 6 p.

Comparison of tool wear mechanisms and surface integrity for dry and wet micro-drilling of nickel-base superalloys
Imran, M., Mativenga, P. T., Gholinia, A. & Withers, P., Jan 2014, In: International Journal of Machine Tools and Manufacture. 76, p. 49-60 11 p.

The microstructure and microtexture of zirconium oxide films studied by transmission electron backscatter diffraction and automated crystal orientation mapping with transmission electron microscopy
Garner, A., Gholinia, A., Frankel, P., Gass, M., Maclaren, I. & Preuss, M., 2014, In: Acta Materialia. 80, p. 159-171 12 p.

Electronically tunable aperiodic distributed feedback terahertz lasers
Marshall, O. P., Chakraborty, S. (Lead), Khairuzzaman, M., Folland, T., Gholinia, A., Beere, H. E. & Ritchie, D. A., 28 May 2013, In: Journal of Applied Physics. 113, 20, 203103.

Vertical field-effect transistor based on graphene-WS₂ heterostructures for flexible and transparent electronics
Georgiou, T., Jalil, R., Belle, B. D., Britnell, L., Gorbachev, R. V., Morozov, S. V., Kim, Y.-J., Gholinia, A., Haigh, S. J., Makarovskiy, O., Eaves, L., Ponomarenko, L. A., Geim, A. K., Novoselov, K. S. & Mishchenko, A., Feb 2013, In: Nature Nanotechnology. 8, 2, p. 100-103 4 p.

On the three-dimensional structure of WC grains in cemented carbides
Borgh, I., Hedstrom, P., Odqvist, J., Borgenstam, A., Agren, J., Gholinia, A., Winiarski, B., Withers, P. J., Thompson, G. E., Mingard, K., Gee, M. G., Hedström, P. & Ågren, J., 2013, In: Acta Materialia. 61, 13, p. 4726-4733 8 p.

A 3D FIB investigation of dynamic recrystallization in a Cu-Sn bronze
Gholinia, A., Brough, I., Humphreys, J. & Bate, P., 14 May 2012, *Recrystallization and Grain Growth IV*. p. 498-501 4 p. (Materials Science Forum; vol. 715-716).

Measuring and modelling the microstructures of two-phase aluminium alloys after deformation
Humphreys, J., Bate, P., Gholinia, A. & Brough, I., 14 May 2012, In: Materials Science Forum. 715-716, p. 23-32 10 p.

HAZ development and accelerated post-weld natural ageing in ultrasonic spot welding aluminium 6111-T4 automotive sheet
Chen, Y.-C., Bakavos, D., Gholinia, A. & Prangnell, P. B., Apr 2012, In: Acta Materialia. 60, 6-7, p. 2816-2828 13 p.

Submicron-scale depth profiling of residual stress in amorphous materials by incremental focused ion beam slotting
Winiarski, B., Gholinia, A., Tian, J., Yokoyama, Y., Liaw, P. K. & Withers, P. J., Mar 2012, In: Acta Materialia. 60, 5, p. 2337-2349 12 p.

Porous anodic film growth on a Zr-W alloy
Muratore, F., Baron-Wiecheć, A., Hashimoto, T., Gholinia, A., Habazaki, H., Skeldon, P. & Thompson, G. E., 28 Feb 2012, In: Electrochemical and solid-state letters. 15, 5, p. C8-C11

3D imaging of structures in bulk and surface modified WC-Co hardmetals
Mingard, K. P., Jones, H. G., Gee, M. G., Roebuck, B., Gholinia, A., Winiarski, B. & Withers, P., 1 Jan 2012, *Hard Materials and Diamond Tooling*. European Powder Metallurgy Association, (Proceedings of the International Euro Powder Metallurgy Congress and Exhibition, Euro PM 2012; vol. 2).

Cross-sectional imaging of individual layers and buried interfaces of graphene-based heterostructures and superlattices
Haigh, S. J., Gholinia, A., Jalil, R., Romani, S., Britnell, L., Elias, D. C., Novoselov, K. S., Ponomarenko, L. A., Geim, A. K. & Gorbachev, R., 2012, In: Nature Materials. 11, 9, p. 764-767 4 p.

ON THE THREE-DIMENSIONAL MICROSTRUCTURE OF MARTENSITE IN CARBON STEELS
Hedström, P., Stormvinter, A., Borgenstam, A., Gholinia, A., Winiarski, B., Withers, P. J., Karlsson, O. & Hagström, J., 2012, *1st International Conference on 3D Materials Science 2012, 3DMS 2012*. p. 19-24 6 p.

Comparison of nanotube formation on zirconium in fluoride/glycerol electrolytes at different anodizing potentials

Muratore, F., Baron-Wiecheć, A., Gholinia, A., Hashimoto, T., Skeldon, P. & Thompson, G. E., 30 Dec 2011, In: *Electrochimica Acta*. 58, 1, p. 389-398 9 p.

Graphene bubbles with controllable curvature

Georgiou, T., Britnell, L., Blake, P., Gorbachev, R. V., Gholinia, A., Geim, A. K., Casiraghi, C. & Novoselov, K. S., 29 Aug 2011, In: *Applied Physics Letters*. 99, 9, 093103.

Evaluation of surface integrity in micro drilling process for nickel-based superalloy

Imran, M., Mativenga, P. T., Gholinia, A. & Withers, P. J., 2011, In: *International Journal of Advanced Manufacturing Technology*. 55, 5-8, p. 465-476 12 p.

An investigation of dynamic recrystallisation on Cu-Sn bronze using 3D EBSD

Gholinia, A., Brough, I., Humphreys, J., McDonald, D. & Bate, P., 1 Jun 2010, In: *Materials Science and Technology*. 26, 6, p. 685-690 5 p.

New method to characterise grain boundary plane orientations based on EBSD orientation microscopy for serial sectioned surfaces

Chou, C. T. & Gholinia, A., 1 Jun 2010, In: *Materials Science and Technology*. 26, 6, p. 650-660 11 p.

Elementary facet method for grain boundary plane determination by 3D EBSD

Chou, C. T. & Gholinia, A., 1 Jan 2010, *Texture and Anisotropy of Polycrystals III*. Trans Tech Publications Ltd, p. 217-222 6 p. (Solid State Phenomena; vol. 160).

Erratum: Surface terracing on ferritic stainless-steel fibres and potential relevance to in vitro cell growth (Philosophical Magazine 89:26 (2285-2303))

Markakia, A. E., Knowles, K. M., Oliver, R. A. & Gholinia, A., 15 Oct 2009, In: *Philosophical Magazine*. 89, 31, p. 2883-2884 2 p.

Surface terracing on ferritic stainless-steel fibres and potential relevance to in vitro cell growth

Markaki, A. E., Knowles, K. M., Oliver, R. A. & Gholinia, A., 26 Aug 2009, In: *Philosophical Magazine*. 89, 26, p. 2285-2303 19 p.

A 3D EBSD investigation of dynamic recrystallisation in a Cu-Sn bronze

Gholinia, A., Brough, I., Humphreys, J., McDonald, D. & Bate, P., 1 Jul 2009, In: *Microscopy and Microanalysis*. 15, SUPPL. 2, p. 406-407 2 p.

Texture and microstructure of bismuth iron oxide thin films analyzed by EBSD

Goran, D., Gholinia, A., Lahmar, A., Habouti, S., Solterbeck, C. H. & Es-Souni, M., 1 Dec 2008, *Materials Science and Technology Conference and Exhibition MS and T'08*. p. 1197-1205 9 p. (Materials Science and Technology Conference and Exhibition, MS and T'08; vol. 2).

On the capability of revealing the pseudosymmetry of the chalcopyrite-type crystal structure

Abou-Ras, D., Gibmeier, J., Nolze, G., Gholinia, A. & Konijnenberg, P., 1 Mar 2008, In: *Crystal Research and Technology*. 43, 3, p. 234-239 6 p.

Quantitative microstructure characterization of self-annealed copper films with electron backscatter diffraction

Pantleon, K., Gholinia, A. & Marcel Somers, A. J., 7 Feb 2008, In: *Physica Status Solidi (A) Applications and Materials Science*. 205, 2, p. 275-281 7 p.

Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films

Trager-Cowan, C., Sweeney, F., Trimby, P. W., Day, A., Gholinia, A., Schmidt, N. H., Parbrook, P. J., Wilkinson, A. J. & Watson, I. M., 1 Feb 2007, In: *Physical Review B - Condensed Matter and Materials Physics*. 75, 8, 085301.

Characterisation of nitride thin films by electron backscatter diffraction and electron channelling contrast imaging

Trager-Cowan, C., Sweeney, F., Winkelmann, A., Wilkinson, A. J., Trimby, P. W., Day, A., Gholinia, A., Schmidt, N. H., Parbrook, P. J. & Watson, I. M., 1 Nov 2006, In: *Materials Science and Technology*. 22, 11, p. 1352-1358 7 p.

Characterization of nitride thin films by electron backscatter diffraction and electron channeling contrast imaging

Trager-Cowan, C., Sweeney, F., Wilkinson, A. J., Trimby, P. W., Day, A., Gholinia, A., Schmidt, N. H., Parbrook, P. J. & Watson, I. M., 15 May 2006, *Materials Research Society Symposium Proceedings*. p. 677-682 6 p. (Materials Research Society Symposium Proceedings; vol. 892).

Thermal stability of electrodeposited Ni and Ni-Co layers; an EBSD-study

Rasmussen, A. A., Gholinia, A., Trimby, P. W. & Somers, M. A. J., 1 Dec 2004, In: *Materials Science Forum*. 467-470, II, p. 1345-1352 8 p.

High resolution EBSD analysis of severely deformed submicron grained aluminium alloys

Prangnell, P. B., Bowen, J. R., Gholinia, A. & Markushev, M. V., 3 Dec 2000, In: *Materials Research Society Symposium - Proceedings*. 601, p. 323-334 12 p.

Analysis of the billet deformation behaviour in equal channel angular extrusion

Bowen, J. R., Gholinia, A., Roberts, S. M. & Prangnell, P. B., 15 Jul 2000, In: *Materials Science and Engineering A*. 287, 1, p. 87-99 13 p.

Effect of strain path on the development of deformation structures in severely deformed aluminium alloys processed by ECAE

Gholinia, A., Prangnell, P. B. & Markushev, M. V., 14 Mar 2000, In: *Acta Materialia*. 48, 5, p. 1115-1130 16 p.

Processing to ultrafine grain structures by conventional routes

Gholinia, A., Humphreys, F. J. & Prangnell, P., 1 Jan 2000, In: *Materials Science and Technology*. 16, 11-12, p. 1251-1255 5 p.

Ultrafine grain structures formed by thermomechanical processing of spray cast Al-Li alloys

Gholinia, A., Sarkar, J., Withers, P. J. & Prangnell, P. B., Jun 1999, In: *Materials Science and Technology*. 15, 6, p. 605-615 10 p.

Cast microstructure and dispersoid formation in spray deposited Al-Li alloys

Gholinia, A. & Prangnell, P. B., 1999, In: *Materials Science and Technology*. 15, 3, p. 328-336 9 p.

Developing stable fine-grain microstructures by large strain deformation

Humphreys, F. J., Prangnell, P. B., Bowen, J. R., Gholinia, A. & Harris, C., 1999, In: *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*. 357, 1756, p. 1663-1681 19 p.

Structure and mechanical behaviour of an Al-Mg alloy after equal channel angular extrusion

Markushev, M. V., Murashkin, M. Y., Prangnell, P. B., Gholinia, A. & Maiorova, O. A., 1999, In: *Nanostructured Materials*. 12, 5, p. 839-842 4 p.

Biaxial fatigue of sintered hydroxylapatite

Hussain, T., Gholinia, A. & Leach, C., 1997, In: *Key Engineering Materials*. 132-136, p. 544-547 4 p.

Cathodoluminescence microscopy of impurity phases in ZrO₂/Ni nano-composites

Gholinia, A. & Leach, C., 1997, In: *Journal of Materials Science*. 32, 24, p. 6625-6628 4 p.

Thermoanalytical studies of the processing of bulk and thin film BSCCO high T_c superconductors by the Edita-Gel route

Gholinia, A. & Sale, F. R., Oct 1994, In: *Journal of Thermal Analysis*. 42, 4, p. 733-743 11 p.

Microstructural studies of the production of BSCCO superconductors by the citrate gel route

Gholinia, A. & Sale, F. R., 31 Aug 1993, *Book X-Ray Optics and Microanalysis 1992: Proceedings of the 13th INT Conference, 31 August-4 September 1992, Manchester, UK*. Kenway, P. B. & Duke, P. J. (eds.). Boca Raton: CRC Press, p. 213-216 4 p. (Institute of Physics Conference Series).

The decomposition of edta-gel precursors in the production of BSCCO superconductors

Gholinia, A. & Sale, F. R., Feb 1993, In: *Journal of Thermal Analysis*. 40, 1, p. 349-356 8 p.

Activities

Royal Microscopical Society

Gholinia, A. (Chair)

22 Mar 2016

Institute of Materials, Minerals & Mining (IOM3) (External organisation)

Gholinia, A. (Academic expert member)

1 Jan 2015

Datasets

Live SEM Demonstration: Introduction to EBSD Setup

Davis, A. (Creator), Donoghue, J. (Creator) & Gholinia, A. (Creator), University of Manchester Figshare, 5 Oct 2021

DOI: 10.48420/16740697.v1,

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