

# E Andrew Payzant

## List of Publications by Year in descending order

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183  
papers

8,031  
citations

53751

45  
h-index

54882

84  
g-index

198  
all docs

198  
docs citations

198  
times ranked

10709  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Consumable development to tailor residual stress in parts fabricated using directed energy deposition processes. Additive Manufacturing, 2021, 39, 101837.   | 1.7  | 4         |
| 2  | Quantitative texture analysis using the NOMAD time-of-flight neutron diffractometer. Journal of Applied Crystallography, 2021, 54, 867-877.  | 1.9  | 4         |
| 3  | Neutron diffraction illustrates residual stress behavior of welded alloys used as radioactive confinement boundary. International Journal of Pressure Vessels and Piping, 2021, 191, 104348.   | 1.2  | 4         |
| 4  | Effective residual stress prediction validated with neutron diffraction method for metal large-scale additive manufacturing. Materials and Design, 2021, 205, 109751.  | 3.3  | 33        |
| 5  | Mapping of Texture and Phase Fractions in Heterogeneous Stress States during Multiaxial Loading of Biomedical Superelastic NiTi. Advanced Materials, 2021, 33, e2005092.   | 11.1 | 7         |
| 6  | Doping-driven electronic and lattice dynamics in the phase-change material vanadium dioxide. Physical Review B, 2020, 102, .   | 1.1  | 8         |
| 7  | Experimental determination of precision, resolution, accuracy and trueness of time-of-flight neutron diffraction strain measurements. Journal of Applied Crystallography, 2020, 53, 494-511.   | 1.9  | 5         |
| 8  | Probing orientation information using 3-dimensional reciprocal space volume analysis. Review of Scientific Instruments, 2019, 90, 013902.  | 0.6  | 5         |
| 9  | Current capabilities of the residual stress diffractometer at the high flux isotope reactor. Review of Scientific Instruments, 2018, 89, 092804.   | 0.6  | 28        |
| 10 | Exploring the Cooling Process for Residual Stress Reduction in Dissimilar Welds. Welding Journal, 2018, 97, 315-325.   | 0.9  | 5         |
| 11 | Study on the residual stress relaxation in girth-welded steel pipes under bending load using diffraction methods. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 289-300.                          | 2.6  | 20        |
| 12 | Path length dependent neutron diffraction peak shifts observed during residual strain measurements in 8wt% Mo castings. Journal of Applied Crystallography, 2017, 50, 851-858.   | 1.9  | 1         |
| 13 | Non-congruence of high-temperature mechanical and structural behaviors of LaCoO <sub>3</sub> based perovskites. Journal of the European Ceramic Society, 2017, 37, 1563-1576.  | 2.8  | 10        |
| 14 | Resolving the degradation pathways in high-voltage oxides for high-energy-density lithium-ion batteries; Alternation in chemistry, composition and crystal structures. Nano Energy, 2017, 36, 76-84.   | 8.2  | 30        |
| 15 | Degradation and onset of plastic anisotropy in marine aluminum alloy due to fire exposure by bulk neutron diffraction and in situ loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 700, 583-591. | 2.6  | 1         |
| 16 | Residual Stress Analysis in Girth-welded Ferritic and Austenitic Steel Pipes Using Neutron and X-Ray Diffraction. , 2017, , .  |      | 2         |
| 17 | Tensile Residual Stress Mitigation Using Low Temperature Phase Transformation Filler Wire in Welded Armor Plates. , 2017, , .  |      | 2         |
| 18 | Neutron and X-ray powder diffraction study of skutterudite thermoelectrics. Powder Diffraction, 2016, 31, 16-22.   | 0.4  | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Anisotropic storage medium development in a full-scale, sodium alanate-based, hydrogen storage system. International Journal of Hydrogen Energy, 2016, 41, 13557-13574. | 3.8 | 4         |

20 Structural and magnetic phase transitions in  $\text{CeCu}_6$

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 37 | Correlating cation ordering and voltage fade in a lithium-rich manganese-rich lithium-ion battery cathode oxide: a joint magnetic susceptibility and TEM study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19496.   | 1.3  | 108       |
| 38 | Effect of Na-doped Mo on selenization pathways for CuGa/In metallic precursors. , 2013, , .   |      | 1         |
| 39 | Solvent quality-induced nucleation and growth of parallelepiped nanorods in dilute poly(3-hexylthiophene) (P3HT) solution and the impact on the crystalline morphology of solution-cast thin film. <i>CrystEngComm</i> , 2013, 15, 1114-1124.   | 1.3  | 51        |
| 40 | Structural transformation of a lithium-rich $\text{Li}_{1.2}\text{Co}_{0.1}\text{Mn}_{0.55}\text{Ni}_{0.15}\text{O}_2$ cathode during high voltage cycling resolved by in situ X-ray diffraction. <i>Journal of Power Sources</i> , 2013, 229, 239-248.   | 4.0  | 472       |
| 41 | Anomalous High Ionic Conductivity of Nanoporous $\text{Li}_3\text{PS}_4$ . <i>Journal of the American Chemical Society</i> , 2013, 135, 975-978.  | 6.6  | 709       |
| 42 | Characterization and analyses of degradation and recovery of $\text{LaNi}_{4.78}\text{Sn}_{0.22}$ hydrides following thermal aging. <i>Journal of Alloys and Compounds</i> , 2013, 580, S207-S210.  | 2.8  | 12        |
| 43 | Surface-Induced Orientation Control of CuPc Molecules for the Epitaxial Growth of Highly Ordered Organic Crystals on Graphene. <i>Journal of the American Chemical Society</i> , 2013, 135, 3680-3687.  | 6.6  | 125       |
| 44 | Kinetics of Methane Hydrate Decomposition Studied via in Situ Low Temperature X-ray Powder Diffraction. <i>Journal of Physical Chemistry A</i> , 2013, 117, 3593-3598.  | 1.1  | 25        |
| 45 | Aromatic Polythiourea Dielectrics with Ultrahigh Breakdown Field Strength, Low Dielectric Loss, and High Electric Energy Density. <i>Advanced Materials</i> , 2013, 25, 1734-1738.  | 11.1 | 285       |
| 46 | Structural transformation in a $\text{Li}_{1.2}\text{Co}_{0.1}\text{Mn}_{0.55}\text{Ni}_{0.15}\text{O}_2$ lithium-ion battery cathode during high-voltage hold. <i>RSC Advances</i> , 2013, 3, 7479.  | 1.7  | 44        |
| 47 | Investigating phase transformation in the $\text{Li}_{1.2}\text{Co}_{0.1}\text{Mn}_{0.55}\text{Ni}_{0.15}\text{O}_2$ lithium-ion battery cathode during high-voltage hold (4.5 V) via magnetic, X-ray diffraction and electron microscopy studies. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6249. | 5.2  | 125       |
| 48 | Sustainable Mesoporous Carbons as Storage and Controlled-Delivery Media for Functional Molecules. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 5868-5874.   | 4.0  | 75        |
| 49 | Synthesis, Annealing, and Performances of Pd-Au Asymmetric Composite Membranes for Hydrogen Purification. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 8732-8744.   | 1.8  | 9         |
| 50 | X-Ray Diffraction Studies of Forward and Reverse Plastic Flow in Nanoscale Layers During Thermal Cycling. <i>Materials Research Letters</i> , 2013, 1, 233-243.   | 4.1  | 11        |
| 51 | Aromatic Polythiourea with Ultrahigh Breakdown Strength for High Energy Density and Low Loss Capacitor Applications. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1499, 1.  | 0.1  | 0         |
| 52 | Investigation of Crystallization Processes from Hafnium Silicate Powders Prepared from an Oxychloride Sol-Gel. <i>Journal of the American Ceramic Society</i> , 2012, 95, 3985-3991.  | 1.9  | 4         |
| 53 | Device degradation studies of CIGS solar cells using in-situ high temperature X-ray diffraction. , 2012, , .  |      | 1         |
| 54 | Understanding the Metal-Directed Growth of Single-Crystal $\text{M-TCNQF}_4$ Organic Nanowires with Time-Resolved, in Situ X-ray Diffraction and First-Principles Theoretical Studies. <i>Journal of the American Chemical Society</i> , 2012, 134, 14353-14361.  | 6.6  | 17        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 55 | Non-congruence of thermally driven structural and electronic transitions in VO <sub>2</sub> . Journal of Applied Physics, 2012, 112, .  | 1.1  | 43        |
| 56 | The temperature dependence of thermal expansion for p-type Ce <sub>0.9</sub> Fe <sub>3.5</sub> Co <sub>0.5</sub> Sb <sub>12</sub> and n-type Co <sub>0.95</sub> Pd <sub>0.05</sub> Te <sub>0.05</sub> Sb <sub>3</sub> skutterudite thermoelectric materials. Philosophical Magazine, 2012, 92, 1261-1286. | 0.7  | 16        |
| 57 | Reaction routes for the synthesis of CuInSe <sub>2</sub> using bilayer compound precursors. Progress in Photovoltaics: Research and Applications, 2012, 20, 543-556.  | 4.4  | 7         |
| 58 | A Topotactic Synthetic Methodology for Highly Fluorine-Doped Mesoporous Metal Oxides. Angewandte Chemie - International Edition, 2012, 51, 2888-2893.   | 7.2  | 13        |
| 59 | Structural and magnetic analysis of nanocrystalline lead europium sulfide (PbxEu <sub>y</sub> S). Materials Chemistry and Physics, 2012, 134, 1-6.  | 2.0  | 4         |
| 60 | Synthesis of silica supported AuCu nanoparticle catalysts and the effects of pretreatment conditions for the CO oxidation reaction. Physical Chemistry Chemical Physics, 2011, 13, 2571.  | 1.3  | 92        |
| 61 | Synthesis of CIGS absorber layers from bilayer metal precursors. , 2011, , .  |      | 1         |
| 62 | Combined in situ XRD and in situ XANES studies on the reduction behavior of a rhenium promoted cobalt catalyst. Physical Chemistry Chemical Physics, 2011, 13, 14735.   | 1.3  | 24        |
| 63 | Size-Dependent Crystalline to Amorphous Uphill Phase Transformation of Hydroxyapatite Nanoparticles. Crystal Growth and Design, 2011, 11, 45-52.  | 1.4  | 16        |
| 64 | High-temperature order/disorder transition in the thermoelectric Cu <sub>3</sub> SbSe <sub>3</sub> . Journal of Materials Research, 2011, 26, 2001-2005.  | 1.2  | 27        |
| 65 | Effects of Growth Temperature on Epitaxial Thin Films of Vanadium Dioxide Grown by Pulsed Laser Deposition. , 2011, , .   |      | 0         |
| 66 | Characterization of Hafnia Powder Prepared from an Oxychloride Sol-Gel. Journal of the American Ceramic Society, 2011, 94, 886-894.   | 1.9  | 5         |
| 67 | Effect of Laser Sintering on Ti-ZrB <sub>2</sub> Mixtures. Journal of the American Ceramic Society, 2011, 94, 3282-3285.  | 1.9  | 7         |
| 68 | Influence of zeolite crystal expansion/contraction on NaA zeolite membrane separations. Journal of Membrane Science, 2011, 366, 413-420.  | 4.1  | 48        |
| 69 | Elevated-Temperature Mechanical Behavior of As-Cast and Wrought Ti-6Al-4V-1B. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3046-3061.   | 1.1  | 18        |
| 70 | Probing Local and Global Ferroelectric Phase Stability and Polarization Switching in Ordered Macroporous PZT. Advanced Functional Materials, 2011, 21, 941-947.   | 7.8  | 23        |
| 71 | Ferroelectric Materials: Probing Local and Global Ferroelectric Phase Stability and Polarization Switching in Ordered Macroporous PZT (Adv. Funct. Mater. 5/2011). Advanced Functional Materials, 2011, 21, 802-802.  | 7.8  | 1         |
| 72 | PS- <i>b</i> -P3HT Copolymers as P3HT/PCBM Interfacial Compatibilizers for High Efficiency Photovoltaics. Advanced Materials, 2011, 23, 5529-5535.  | 11.1 | 110       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 73 | Extremely Durable High-Rate Capability of a $\text{LiNi}_{0.4}\text{Mn}_{0.4}\text{Co}_{0.2}\text{O}_2$ Cathode Enabled with Single-Walled Carbon Nanotubes. <i>Advanced Energy Materials</i> , 2011, 1, 58-62.                                 | 10.2 | 74        |
| 74 | Impact of dopants on the sulfation, desulfation and NO <sub>x</sub> reduction performance of Ba-based NO <sub>x</sub> storage-reduction catalysts†. <i>Catalysis Today</i> , 2011, 160, 131-136.  | 2.2  | 6         |
| 75 | High-growth rate YSZ thermal barrier coatings deposited by MOCVD demonstrate high thermal cycling lifetime. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 978-985. | 2.6  | 14        |
| 76 | Structure and magnetic order in the series $\text{Bi}_x\text{RE}_{1-x}\text{Fe}_{0.5}\text{Mn}_{0.5}\text{O}_3$ (RE=La,Nd). <i>Journal of Solid State Chemistry</i> , 2011, 184, 830-842.   | 1.4  | 16        |
| 77 | Enhanced performance of room-temperature-grown epitaxial thin films of vanadium dioxide. <i>Applied Physics Letters</i> , 2011, 98, 251916.   | 1.5  | 47        |
| 78 | Isothermal solid-state transformation kinetics applied to Pd/Cu alloy membrane fabrication. <i>AIChE Journal</i> , 2010, 56, 3062-3073.   | 1.8  | 19        |
| 79 | Influence of crystal expansion/contraction on zeolite membrane permeation. <i>Journal of Membrane Science</i> , 2010, 357, 98-104.  | 4.1  | 25        |
| 80 | Mechanical behavior and electrical conductivity of $\text{La}_{1-x}\text{Ca}_x\text{CoO}_3$ (x=0, 0.2, 0.4, 0.55) perovskites. <i>Journal of Power Sources</i> , 2010, 195, 3612-3620.  | 4.0  | 27        |
| 81 | The effect of processing on the 455°C tensile and fatigue behavior of boron-modified Ti-6Al-4V. <i>International Journal of Fatigue</i> , 2010, 32, 627-638.  | 2.8  | 47        |
| 82 | Organo-montmorillonite barrier layers formed by combustion: Nanostructure and permeability. <i>Applied Clay Science</i> , 2010, 49, 213-223.  | 2.6  | 7         |
| 83 | Reaction kinetics and pathways of $\text{MoSe}_2$ , 2010, , .   |      | 2         |
| 84 | Metastable Copper-Phthalocyanine Single-Crystal Nanowires and Their Use in Fabricating High-Performance Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2009, 19, 3776-3780.   | 7.8  | 81        |
| 85 | The effects of fabrication and annealing on the structure and hydrogen permeation of Pd-Au binary alloy membranes. <i>Journal of Membrane Science</i> , 2009, 340, 227-233.   | 4.1  | 56        |
| 86 | Mechanical behavior of $\text{La}_{0.8}\text{Sr}_{0.2}\text{Ga}_{0.8}\text{Mg}_{0.2}\text{O}_3$ perovskites. <i>Ceramics International</i> , 2009, 35, 1235-1241.   | 2.3  | 19        |
| 87 | MOCVD of YSZ coatings using $\hat{1}^2$ -diketonate precursors. <i>Journal of Alloys and Compounds</i> , 2009, 470, 354-359.  | 2.8  | 14        |
| 88 | Other Topics. , 2009, , 365-380.  |      | 3         |
| 89 | Thermal and mechanical properties of $\text{LaCoO}_3$ and $\text{La}_{0.8}\text{Ca}_{0.2}\text{CoO}_3$ perovskites. <i>Journal of Power Sources</i> , 2008, 182, 230-239.   | 4.0  | 40        |
| 90 | Thermal, mechanical and phase stability of $\text{LaCoO}_3$ in reducing and oxidizing environments. <i>Journal of Power Sources</i> , 2008, 184, 77-83.   | 4.0  | 46        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 91  | Thermodynamic analysis and growth of ZrO <sub>2</sub> by chloride chemical vapor deposition. Thin Solid Films, 2008, 516, 6133-6139.  | 0.8 | 12        |
| 92  | Synthesis of RE(OH) <sub>2</sub> Cl and REOCl (RE=Eu, Tb) nanostructures. Journal of Rare Earths, 2008, 26, 131-135.  | 2.5 | 11        |
| 93  | Consecutive Nucleation Events During Divitrification of Zr <sub>52.5</sub> Cu <sub>17.9</sub> Ni <sub>14.6</sub> Al <sub>10</sub> Ti <sub>5</sub> Bulk Metallic Glass. Advanced Engineering Materials, 2008, 10, 1043-1047. | 1.6 | 5         |
| 94  | Reaction kinetics of CuGaSe <sub>2</sub> formation from a GaSe/CuSe bilayer precursor film. Journal of Crystal Growth, 2008, 310, 2987-2994.  | 0.7 | 33        |
| 95  | Isothermal nucleation and growth kinetics of Pd/Ag alloy phase via in situ time-resolved high-temperature X-ray diffraction (HTXRD) analysis. Journal of Membrane Science, 2008, 316, 97-111.                               | 4.1 | 31        |
| 96  | An Oxide Ion and Proton Co-Ion Conducting Sn <sub>0.9</sub> In <sub>0.1</sub> P <sub>2</sub> O <sub>7</sub> Electrolyte for Intermediate-Temperature Fuel Cells. Journal of the Electrochemical Society, 2008, 155, B1264.  | 1.3 | 50        |
| 97  | Phase transitions in LaFeAsO: Structural, magnetic, elastic, and transport properties, heat capacity and Mössbauer spectra. Physical Review B, 2008, 78, .  | 1.1 | 284       |
| 98  | Synthesis, Symmetry, and Physical Properties of Cerium Pyrophosphate. Chemistry of Materials, 2008, 20, 3728-3734.  | 3.2 | 32        |
| 99  | Development of Novel Polycrystalline Ceramic Scintillators. IEEE Transactions on Nuclear Science, 2008, 55, 1501-1508.  | 1.2 | 41        |
| 100 | Design strategies for oxidation-resistant intermetallic and advanced metallic alloys. , 2008, , 3-18.   |     | 0         |
| 101 | Three-Dimensional Magnetic Correlations in Multiferroic $\text{LuFe}_2\text{O}_4$ . Physical Review Letters, 2008, 100, 107601.   |     | 130       |
| 102 | Elaboration on the hexagonal grid and spiral trace schemes for pole figure data collection. Powder Diffraction, 2008, 23, 87-91.  | 0.4 | 3         |
| 103 | Creep-Resistant, Al <sub>2</sub> O <sub>3</sub> -Forming Austenitic Stainless Steels. Science, 2007, 316, 433-436.  | 6.0 | 337       |
| 104 | In situ high pressure XRD study on hydrogen uptake behavior of Pd-carbon systems. Materials Research Society Symposia Proceedings, 2007, 1042, 1.   | 0.1 | 0         |
| 105 | In situ investigation of the selenization kinetics of Cu-Ga precursors using time-resolved high-temperature X-ray diffraction. Thin Solid Films, 2007, 515, 5837-5842.  | 0.8 | 22        |
| 106 | Protective nitride formation on stainless steel alloys for proton exchange membrane fuel cell bipolar plates. Journal of Power Sources, 2007, 174, 228-236.   | 4.0 | 45        |
| 107 | Fatigue-Property Enhancement of Magnesium Alloy, AZ31B, through Equal-Channel-Angular Pressing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 2283-2289.                 | 1.1 | 24        |
| 108 | Comparison of High Temperature Crystal Lattice and Bulk Thermal Expansion Measurements of LGT Single Crystal. , 2006, , .   |     | 18        |

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|-----|--|-----|-----------|
| 109 | Microstrains and Stresses Analysis in Electroless Deposited Thin Pd Films. Industrial & Engineering Chemistry Research, 2006, 45, 8145-8153.   | 1.8 | 27        |
| 110 | Tensile and Compressive Creep Behavior of Magnesium Die Casting Alloys Containing Aluminum. , 2006, , 685-692.   |     | 4         |
| 111 | In situ investigation on selenization kinetics of Cu-In precursor using time-resolved, high temperature X-ray diffraction. Journal of Crystal Growth, 2006, 294, 231-235.  | 0.7 | 53        |
| 112 | Nanocrystalline BaTiO <sub>3</sub> powder via a sol process ambient conditions. Journal of the European Ceramic Society, 2006, 26, 2319-2326.  | 2.8 | 26        |
| 113 | In-situ Observation of Selenization of Cu-Ga-In Metallic Precursors. , 2006, , .   |     | 3         |
| 114 | Growth and characterization of chromium oxide thin films prepared by reactive ac magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2006, 24, 1870-1877.  | 0.9 | 15        |
| 115 | Preparation and thermal expansion of with the cubic ZrP <sub>2</sub> O <sub>7</sub> structure. Journal of Solid State Chemistry, 2005, 178, 3541-3546.   | 1.4 | 15        |
| 116 | Reaction kinetics of $\hat{\pm}$ -CuInSe <sub>2</sub> formation from an In <sub>2</sub> Se <sub>3</sub> /CuSe bilayer precursor film. Journal of Physics and Chemistry of Solids, 2005, 66, 1915-1919.   | 1.9 | 46        |
| 117 | Crystal growth of B <sub>12</sub> As <sub>2</sub> on SiC substrate by CVD method. Journal of Crystal Growth, 2005, 273, 431-438.   | 0.7 | 26        |
| 118 | Processing of YSZ thin films on dense and porous substrates. Surface and Coatings Technology, 2005, 200, 1242-1247.  | 2.2 | 25        |
| 119 | Effect of strain path on texture and annealing microstructure development in bulk pure copper processed by simple shear. Acta Materialia, 2005, 53, 801-810.   | 3.8 | 66        |
| 120 | Electrical Conductivity of the Manganese Chromite Spinel Solid Solution. Journal of the American Ceramic Society, 2005, 88, 1050-1053.   | 1.9 | 110       |
| 121 | Formation of YSZ-SDC Solid Solution in a Nanocrystalline Heterophase System and Its Effect on the Electrical Conductivity. Journal of the American Ceramic Society, 2005, 88, 1812-1818.   | 1.9 | 41        |
| 122 | Characterization of the Piezoelectric Properties of Pb <sub>0.98</sub> Ba <sub>0.02</sub> (Mg <sub>1/3</sub> Nb <sub>2/3</sub> )O <sub>3</sub> $\hat{\pm}$ PbTiO <sub>3</sub> Epitaxial Thin Films. International Journal of Applied Ceramic Technology, 2005, 2, 51-58. |     | 20        |
| 123 | Coating and near-surface modification design strategies for protective and functional surfaces. Materials and Corrosion - Werkstoffe Und Korrosion, 2005, 56, 748-755.   | 0.8 | 13        |
| 124 | Solution Deposition Approach to High $J_c$ Coated Conductor Fabrication. IEEE Transactions on Applied Superconductivity, 2005, 15, 2974-2976.  | 1.1 | 12        |
| 125 | Reaction kinetics of CuInSe <sub>2</sub> thin films grown from bilayer InSe/CuSe precursors. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2005, 23, 310-315.  | 0.9 | 44        |
| 126 | Size effects in PbTiO <sub>3</sub> nanocrystals: Effect of particle size on spontaneous polarization and strains. Journal of Applied Physics, 2005, 97, 084305.  | 1.1 | 66        |



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|-----|---|-----|-----------|
| 127 | Assessment of Chemical Solution Synthesis and Properties of Gd <sub>2</sub> Zr <sub>2</sub> O <sub>7</sub> Thin Films as Buffer Layers for Second-Generation High-Temperature Superconductor Wires. <i>Journal of Materials Research</i> , 2005, 20, 2988-2996. | 1.2 | 20        |
| 128 | Sublimation Growth of Aluminum Nitride-Silicon Carbide Alloy Crystals on SiC (0001) Substrates. <i>Materials Research Society Symposia Proceedings</i> , 2004, 831, 347.  | 0.1 | 3         |
| 129 | Chemical solution deposition of lanthanum zirconate barrier layers applied to low-cost coated-conductor fabrication. <i>Journal of Materials Research</i> , 2004, 19, 2117-2123.  | 1.2 | 44        |
| 130 | Development of Proton Conductors Using Pyrochlore-Perovskite Phase Boundaries. <i>Journal of Materials Engineering and Performance</i> , 2004, 13, 303-308.   | 1.2 | 13        |
| 131 | Oxidation Behavior of Cr <sub>2</sub> N, CrNbN, and CrTaN Phase Mixtures Formed on Nitrided Cr and Laves-Reinforced Cr Alloys. <i>Oxidation of Metals</i> , 2004, 61, 379-401.  | 1.0 | 24        |
| 132 | Structural Effects on the High Temperature Adsorption of CO <sub>2</sub> on a Synthetic Hydrotalcite. <i>Chemistry of Materials</i> , 2004, 16, 4135-4143.  | 3.2 | 186       |
| 133 | Formation of Cadmium Sulfide Nanoparticles in Reverse Micelles: Extreme Sensitivity to Preparation Procedure. <i>Langmuir</i> , 2004, 20, 5642-5644.  | 1.6 | 31        |
| 134 | Controlling the thermal expansion anisotropy of Mo <sub>5</sub> Si <sub>3</sub> and Ti <sub>5</sub> Si <sub>3</sub> silicides. <i>Intermetallics</i> , 2004, 12, 845-850.   | 1.8 | 45        |
| 135 | Synthesis of Ternary Nitrides from Intermetallic Precursors: Modes of Nitridation in Model Cr <sub>3</sub> Pt Alloys To Form Cr <sub>3</sub> PtN Antiperovskite and Application to Other Systems. <i>Chemistry of Materials</i> , 2004, 16, 1984-1990.          | 3.2 | 12        |
| 136 | D-89 In-Situ HTXRD Characterization for Thin Films. <i>Powder Diffraction</i> , 2004, 19, 195-195.  | 0.4 | 0         |
| 137 | Mechanism of nanocrystalline BaTiO <sub>3</sub> particle formation by hydrothermal refluxing synthesis. <i>Journal of Materials Science: Materials in Electronics</i> , 2003, 14, 495-500.  | 1.1 | 20        |
| 138 | Title is missing!. <i>Journal of Materials Science</i> , 2003, 38, 3831-3844.   | 1.7 | 13        |
| 139 | Title is missing!. <i>Journal of Materials Science</i> , 2003, 38, 979-985.   | 1.7 | 21        |
| 140 | Synthesis of nanocrystalline BaTiO <sub>3</sub> by solvent refluxing method. <i>Journal of Materials Science Letters</i> , 2003, 22, 557-559.   | 0.5 | 12        |
| 141 | MOD approach for the growth of epitaxial CeO <sub>2</sub> buffer layers on biaxially textured Ni <sub>4</sub> W substrates for YBCO coated conductors. <i>Superconductor Science and Technology</i> , 2003, 16, 1305-1309.                                      | 1.8 | 123       |
| 142 | Kinetics of the cubic to trigonal transformation in ZrMo <sub>2</sub> O <sub>8</sub> and their dependence on precursor chemistry. <i>Journal of Materials Chemistry</i> , 2002, 12, 990-994.  | 6.7 | 20        |
| 143 | Thermal expansion anisotropy of ternary molybdenum silicides based on Mo <sub>5</sub> Si <sub>3</sub> . <i>Physical Review B</i> , 2002, 65, .  | 1.1 | 30        |
| 144 | Dimensional changes and creep of silica core ceramics used in investment casting of superalloys. <i>Journal of Materials Science</i> , 2002, 37, 4235-4245.   | 1.7 | 90        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 145 | Properties of Ionic-Conducting $\text{Bi}_{2-x}\text{O}_{3-x}$ Containing Mixed Dopants. Journal of the American Ceramic Society, 2002, 85, 2633-2636.  | 1.9 | 6         |
| 146 | Grain Growth in Nanocrystalline Yttrium-Stabilized Zirconia Thin Films Synthesized by Spin Coating of Polymeric Precursors. Journal of Nanoscience and Nanotechnology, 2002, 2, 161-169.  | 0.9 | 13        |
| 147 | Preparation of the negative thermal expansion material cubic $\text{ZrMo}_2\text{O}_8$ . Journal of Materials Chemistry, 2001, 11, 3354-3359.   | 6.7 | 65        |
| 148 | In-situ characterization of $\text{Bi}_2\text{O}_3$ lattice stability in a nickel-base superalloy by neutron diffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1551-1552. | 1.1 | 4         |
| 149 | In situ high-temperature X-ray diffraction studies of mixed-conducting perovskite-type oxides. Journal of Materials Science Letters, 2001, 20, 1631-1633.   | 0.5 | 4         |
| 150 | Thermal Decomposition of Zircon Refractories. Journal of the American Ceramic Society, 2001, 84, 2930-2936.   | 1.9 | 46        |
| 151 | Error Corrections For X-RAY Powder Diffractometry. Canadian Metallurgical Quarterly, 2001, 40, 385-394.   | 0.4 | 17        |
| 152 | Templated growth of a complex nitride island dispersion through an internal nitridation reaction. Journal of Materials Research, 2001, 16, 2784-2787.   | 1.2 | 11        |
| 153 | Sol-Gel and Ultrafine Particle Formation via Dielectric Tuning of Inorganic Salt-Alcohol-Water Solutions. Journal of Colloid and Interface Science, 2000, 222, 20-36.   | 5.0 | 73        |
| 154 | Template-removal-associated microstructural development of porous-ceramic-supported MFI zeolite membranes. Microporous and Mesoporous Materials, 2000, 34, 241-253.   | 2.2 | 230       |
| 155 | Wet-chemical synthesis of monodispersed barium titanate particles and hydrothermal conversion of $\text{TiO}_2$ microspheres to nanocrystalline $\text{BaTiO}_3$ . Powder Technology, 2000, 110, 2-14.                                | 2.1 | 101       |
| 156 | Title is missing!. Journal of Materials Science, 2000, 35, 2927-2936.   | 1.7 | 57        |
| 157 | Thermal properties of $\text{Ti}_3\text{SiC}_2$ . Journal of Physics and Chemistry of Solids, 1999, 60, 429-439.  | 1.9 | 315       |
| 158 | Nanocrystallization and Phase Transformation in Monodispersed Ultrafine Zirconia Particles from Various Homogeneous Precipitation Methods. Journal of the American Ceramic Society, 1999, 82, 2313-2320.                              | 1.9 | 108       |
| 159 | Perovskite-related $\text{ZrO}_2$ -doped $\text{SrCo}_{0.4}\text{Fe}_{0.6}\text{O}_{3-\delta}$ membrane for oxygen permeation. AIChE Journal, 1999, 45, 276-284.  | 1.8 | 56        |
| 160 | Structure-property relations in mesoscopic $\text{BaTiO}_3$ and $\text{PbTiO}_3$ . Ferroelectrics, 1999, 223, 11-18.  | 0.3 | 27        |
| 161 | Engineering applications of neutron scattering at the high flux isotope reactor. Neutron News, 1999, 10, 26-30.   | 0.1 | 3         |
| 162 | Comparison of Oxygen Permeability and Stability of Perovskite Type $\text{La}_{0.2}\text{A}_{0.8}\text{Co}_{0.2}\text{Fe}_{0.8}\text{O}_{3-\delta}$ (A = Sr, Ba). $T_j$ ETQq0,0 0 rgBTj/Overlock                                      | 1.8 | 90        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 163 | <title>Infrared imaging of temperature distribution in a high-temperature x-ray diffraction furnace</title> . , 1999, 3700, 377.   |     | 2         |
| 164 | Epitaxial growth of Cu(111) films on Si(110) by magnetron sputtering: orientation and twin growth. Thin Solid Films, 1998, 315, 13-16.   | 0.8 | 41        |
| 165 | Residual stresses and microstructure of H13 steel formed by combining two different direct fabrication methods. Scripta Materialia, 1998, 39, 1471-1476.   | 2.6 | 29        |
| 166 | Texture formation in bulk iron processed by simple shear. Scripta Materialia, 1998, 39, 1699-1704.   | 2.6 | 63        |
| 167 | High temperature phase transformation in rhombohedral bismuth strontium oxide. Thermochemica Acta, 1998, 318, 45-50.   | 1.2 | 2         |
| 168 | Measurement of the electrostrictive coefficients of modified lead magnesium niobate using neutron powder diffraction. Applied Physics Letters, 1998, 72, 1042-1044.                                      | 1.5 | 17        |
| 169 | Magnetic and structural properties of epitaxially grown FeTaN thin films. Journal of Applied Physics, 1998, 83, 5955-5966.   | 1.1 | 33        |
| 170 | Epitaxial growth of Cu on Si by magnetron sputtering. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 3376-3383.   | 0.9 | 63        |
| 171 | Experimental determination of the residual stresses in a spiral weld overlay tube. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 232, 31-38. | 2.6 | 23        |
| 172 | X-ray and neutron diffraction strain measurement developments at ORNL. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C369-C369.  | 0.3 | 0         |
| 173 | Suppression of the phase transformation of ZrO <sub>2</sub> and PSZ in colloiddally processed zirconia-alumina composites. Journal of Materials Science Letters, 1995, 14, 1135-1137.                    | 0.5 | 0         |
| 174 | Critical current density of La <sub>1.85</sub> Sr <sub>0.15</sub> Cu <sub>1-y</sub> VyO <sub>4-δ</sub> ceramics. Superconductor Science and Technology, 1995, 8, 883-886.                                | 1.8 | 2         |
| 175 | Low Temperature Attachment for X-ray Powder Diffractometry. , 1994, , 457-463.   |     | 1         |
| 176 | An Experimental Evaluation of Computational Methods for Determining Lattice Parameters Using Bragg-Brentano Powder Diffractometry. , 1994, , 87-93.  |     | 0         |
| 177 | Magnetic field induced texture during KCl flux synthesis of strontium hexaferrite. Journal of Magnetism and Magnetic Materials, 1993, 124, 9-14.   | 1.0 | 3         |
| 178 | An Experimental Examination of Error Functions for Bragg-Brentano Powder Diffractometry. , 1993, , 663-670.  |     | 4         |
| 179 | Disposable Heater Strips for High Temperature Powder Diffractometer Furnaces. , 1993, , 433-437.   |     | 0         |
| 180 | Magnetically Induced Texturing during the Sintering of Strontium Hexaferrite. Solid State Phenomena, 1992, 25-26, 157-164.   | 0.3 | 1         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 181 | The magnetization of superconducting $\text{La}_{1.85}\text{Sr}_{0.15}\text{Cu}_1\text{V}_x\text{O}_4$ , Journal of Applied Physics, 1991, 69, 4857-4859.                                  | 1.1 | 2         |
| 182 | Identification of a second phase in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ superconductors resulting from precursor lanthanum deficiency. Solid State Communications, 1990, 76, 409-410. | 0.9 | 7         |
| 183 | Mg <sub>17</sub> Al <sub>12</sub> Phase Precipitation Kinetics in Die Casting Alloys AZ91D and AM60B. , 0, , 183-187.  |     | 0         |