

Joseph A Dura

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

5,667
citations

147566

31
h-index

76769

74
g-index

87
all docs

87
docs citations

87
times ranked

6117
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Highly reversible zinc metal anode for aqueous batteries. <i>Nature Materials</i> , 2018, 17, 543-549. | 13.3 | 2,080 |
| 2 | Asymmetric Magnetization Reversal in Exchange-Biased Hysteresis Loops. <i>Physical Review Letters</i> , 2000, 84, 3986-3989. | 2.9 | 310 |
| 3 | Liquid Structure with Nano-Heterogeneity Promotes Cationic Transport in Concentrated Electrolytes. <i>ACS Nano</i> , 2017, 11, 10462-10471. | 7.3 | 283 |
| 4 | Effect of Confinement on Structure, Water Solubility, and Water Transport in Nafion Thin Films. <i>Macromolecules</i> , 2012, 45, 7920-7930. | 2.2 | 172 |
| 5 | Reversible Tuning of the Magnetic Exchange Coupling in Fe/V (001) Superlattices Using Hydrogen. <i>Physical Review Letters</i> , 1997, 79, 901-904. | 2.9 | 161 |
| 6 | Multilamellar Interface Structures in Nafion. <i>Macromolecules</i> , 2009, 42, 4769-4774. | 2.2 | 150 |
| 7 | Solid Electrolyte Interphase in Li-Ion Batteries: Evolving Structures Measured In situ by Neutron Reflectometry. <i>Chemistry of Materials</i> , 2012, 24, 2133-2140. | 3.2 | 149 |
| 8 | Perovskite nickelates as electric-field sensors in salt water. <i>Nature</i> , 2018, 553, 68-72. | 13.7 | 146 |
| 9 | Critical review of the current status of thickness measurements for ultrathin SiO ₂ on Si Part V: Results of a CCQM pilot study. <i>Surface and Interface Analysis</i> , 2004, 36, 1269-1303. | 0.8 | 138 |
| 10 | AND/R: Advanced neutron diffractometer/reflectometer for investigation of thin films and multilayers for the life sciences. <i>Review of Scientific Instruments</i> , 2006, 77, 074301. | 0.6 | 131 |
| 11 | Hybrid Bilayer Membranes in Air and Water: Infrared Spectroscopy and Neutron Reflectivity Studies. <i>Biophysical Journal</i> , 1998, 74, 1388-1398. | 0.2 | 126 |
| 12 | Two-Stage Magnetization Reversal in Exchange Biased Bilayers. <i>Physical Review Letters</i> , 2001, 86, 4394-4397. | 2.9 | 124 |
| 13 | Magnetic Structure of Cr in Exchange Coupled Fe/Cr(001) Superlattices. <i>Physical Review Letters</i> , 1997, 79, 4914-4917. | 2.9 | 113 |
| 14 | Investigation of Hybrid Bilayer Membranes with Neutron Reflectometry: Probing the Interactions of Melittin. <i>Langmuir</i> , 2001, 17, 511-521. | 1.6 | 91 |
| 15 | Observation of Antiparallel Magnetic Order in Weakly Coupled Co/Cu Multilayers. <i>Physical Review Letters</i> , 1999, 82, 2796-2799. | 2.9 | 88 |
| 16 | Structure-property relationships at Nafion thin-film interfaces: Thickness effects on hydration and anisotropic ion transport. <i>Nano Energy</i> , 2018, 46, 91-100. | 8.2 | 77 |
| 17 | First-Principles Determination of Hybrid Bilayer Membrane Structure by Phase-Sensitive Neutron Reflectometry. <i>Biophysical Journal</i> , 2000, 79, 3330-3340. | 0.2 | 71 |
| 18 | Phase segregation of sulfonate groups in Nafion interface lamellae, quantified via neutron reflectometry fitting techniques for multi-layered structures. <i>Soft Matter</i> , 2014, 10, 5763-5776. | 1.2 | 68 |

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|----|---|------|-----------|
| 19 | Extraordinary alignment of Nb films with sapphire and the effects of added hydrogen. <i>Physical Review B</i> , 1992, 45, 11426-11429. | 1.1 | 67 |
| 20 | Structure and defects of MBE grown NbAl ₂ O ₃ interfaces. <i>Acta Metallurgica Et Materialia</i> , 1992, 40, S217-S225. | 1.9 | 62 |
| 21 | Phase determination and inversion in specular neutron reflectometry. <i>Physica B: Condensed Matter</i> , 1998, 248, 338-342. | 1.3 | 48 |
| 22 | Quantifying and Suppressing Proton Intercalation to Enable High-Voltage Zn-Ion Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2102016. | 10.2 | 48 |
| 23 | Anomalous lattice expansion of metal-hydrogen thin films. <i>Journal of Materials Research</i> , 1991, 6, 964-968. | 1.2 | 42 |
| 24 | Epitaxial integration of single crystal C60. <i>Applied Physics Letters</i> , 1993, 63, 3443-3445. | 1.5 | 42 |
| 25 | Neutron reflectometry, x-ray reflectometry, and spectroscopic ellipsometry characterization of thin SiO ₂ on Si. <i>Applied Physics Letters</i> , 1998, 73, 2131-2133. | 1.5 | 41 |
| 26 | Surface-Induced Nanostructure and Water Transport of Thin Proton-Conducting Polymer Films. <i>Macromolecules</i> , 2013, 46, 5630-5637. | 2.2 | 41 |
| 27 | Ultra-thin SiO ₂ on Si IX: absolute measurements of the amount of silicon oxide as a thickness of SiO ₂ on Si. <i>Surface and Interface Analysis</i> , 2009, 41, 430-439. | 0.8 | 39 |
| 28 | Determination of the effective transverse coherence of the neutron wave packet as employed in reflectivity investigations of condensed-matter structures. I. Measurements. <i>Physical Review A</i> , 2014, 89, . | 1.0 | 39 |
| 29 | Quantifying Lithium Salt and Polymer Density Distributions in Nanostructured Ion-Conducting Block Polymers. <i>Macromolecules</i> , 2018, 51, 1917-1926. | 2.2 | 39 |
| 30 | Self assembly of magnetic nanoparticles at silicon surfaces. <i>Soft Matter</i> , 2015, 11, 4695-4704. | 1.2 | 38 |
| 31 | Water Uptake and Interfacial Structural Changes of Thin Film Nafion® Membranes Measured by Neutron Reflectivity for PEM Fuel Cells. <i>ECS Transactions</i> , 2008, 16, 1471-1485. | 0.3 | 35 |
| 32 | In Situ Neutron Techniques for Studying Lithium Ion Batteries. <i>ACS Symposium Series</i> , 2012, , 91-106. | 0.5 | 31 |
| 33 | Direct, operando observation of the bilayer solid electrolyte interphase structure: Electrolyte reduction on a non-intercalating electrode. <i>Journal of Power Sources</i> , 2019, 412, 725-735. | 4.0 | 29 |
| 34 | Tailoring Electrode-Electrolyte Interfaces in Lithium-Ion Batteries Using Molecularly Engineered Functional Polymers. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 9919-9931. | 4.0 | 27 |
| 35 | Porous Mg formation upon dehydrogenation of MgH ₂ thin films. <i>Journal of Applied Physics</i> , 2011, 109, 093501. | 1.1 | 26 |
| 36 | Pore collapse and regrowth in silicon electrodes for rechargeable batteries. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 11301-11312. | 1.3 | 26 |

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|----|---|-----|-----------|
| 37 | Enhanced Conductivity via Homopolymer-Rich Pathways in Block Polymer-Blended Electrolytes. <i>Macromolecules</i> , 2019, 52, 9682-9692. | 2.2 | 26 |
| 38 | In Situ Neutron Reflectometry Study of Solid Electrolyte Interface (SEI) Formation on Tungsten Thin-Film Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 47553-47563. | 4.0 | 25 |
| 39 | Self-Assembled Layering of Magnetic Nanoparticles in a Ferrofluid on Silicon Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 5050-5060. | 4.0 | 22 |
| 40 | Electrical-noise measurements on chromium films. <i>Physical Review B</i> , 1991, 44, 7413-7425. | 1.1 | 21 |
| 41 | Investigation of Sb/GaSb multilayer structures for potential application as an indirect narrow-bandgap material. <i>Semiconductor Science and Technology</i> , 1993, 8, S117-S120. | 1.0 | 18 |
| 42 | Spatially Resolved Potential and Li-Ion Distributions Reveal Performance-Limiting Regions in Solid-State Batteries. <i>ACS Energy Letters</i> , 2021, 6, 3944-3951. | 8.8 | 18 |
| 43 | Electron microscopy studies of Nb-Al ₂ O ₃ interfaces formed by molecular beam epitaxy. <i>Surface and Coatings Technology</i> , 1990, 43-44, 199-212. | 2.2 | 17 |
| 44 | Tracking Solvent Distribution in Block Polymer Thin Films during Solvent Vapor Annealing with <i>in Situ</i> Neutron Scattering. <i>Macromolecules</i> , 2016, 49, 7525-7534. | 2.2 | 16 |
| 45 | Photoluminescence spectra of epitaxial single crystal C60. <i>Chemical Physics Letters</i> , 1995, 242, 592-597. | 1.2 | 15 |
| 46 | Unraveling the Complex Hydration Behavior of Ionomers under Thin Film Confinement. <i>Journal of Physical Chemistry C</i> , 2018, 122, 3471-3481. | 1.5 | 15 |
| 47 | Self-Assembly of Magnetic Nanoparticles in Ferrofluids on Different Templates Investigated by Neutron Reflectometry. <i>Nanomaterials</i> , 2020, 10, 1231. | 1.9 | 15 |
| 48 | Surface-induced heterophase fluctuation. <i>Physical Review Letters</i> , 1990, 65, 2692-2695. | 2.9 | 14 |
| 49 | Polarized neutron reflectivity characterization of weakly coupled Co/Cu multilayers. <i>Physica B: Condensed Matter</i> , 2000, 283, 162-166. | 1.3 | 14 |
| 50 | Structural Characterization of the Voltage-Sensor Domain and Voltage-Gated K ⁺ -Channel Proteins Vectorially Oriented within a Single Bilayer Membrane at the Solid/Vapor and Solid/Liquid Interfaces via Neutron Interferometry. <i>Langmuir</i> , 2012, 28, 10504-10520. | 1.6 | 14 |
| 51 | formation on    | | |

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|----|--|-----|-----------|
| 55 | Neutron and X-ray reflectivity analysis of ceramic-metal materials. <i>Thin Solid Films</i> , 1999, 340, 153-158. | 0.8 | 11 |
| 56 | Deuterium-induced volume expansion in Fe _{0.5} V _{0.5} /V superlattices. <i>Physical Review B</i> , 2010, 82, . | 1.1 | 11 |
| 57 | Sb/GaSb heterostructures and multilayers. <i>Applied Physics Letters</i> , 1993, 63, 1098-1100. | 1.5 | 10 |
| 58 | Magnetic depth profiling Co/Cu multilayers to investigate magnetoresistance (invited). <i>Journal of Applied Physics</i> , 2000, 87, 6639-6643. | 1.1 | 10 |
| 59 | Structure and Conductivity of Epitaxial Thin Films of In-Doped BaZrO ₃ -Based Proton Conductors. <i>Journal of Physical Chemistry C</i> , 2016, 120, 28415-28422. | 1.5 | 10 |
| 60 | Nanoconfinement-Induced Phase Segregation of Binary Benzene-Cyclohexane Solutions within a Chemically Inert Matrix. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7676-7684. | 1.5 | 10 |
| 61 | Nuclear Spin Incoherent Neutron Scattering from Quantum Well Resonators. <i>Physical Review Letters</i> , 2019, 123, 016101. | 2.9 | 9 |
| 62 | A neutron reflectivity study of the interfacial and thermal behaviour of surface-attached hairpin DNA. <i>Soft Matter</i> , 2011, 7, 5020. | 1.2 | 8 |
| 63 | Layering of magnetic nanoparticles at amorphous magnetic templates with perpendicular anisotropy. <i>Soft Matter</i> , 2020, 16, 7676-7684. | 1.2 | 8 |
| 64 | A molecular beam epitaxy facility for in situ neutron scattering. <i>Review of Scientific Instruments</i> , 2009, 80, 073906. | 0.6 | 7 |
| 65 | Communication: Nanoscale ion fluctuations in Nafion polymer electrolyte. <i>Journal of Chemical Physics</i> , 2014, 141, 071102. | 1.2 | 7 |
| 66 | Structural characterization of Nb on sapphire as a buffer layer for MBE growth. <i>Journal of Crystal Growth</i> , 1993, 127, 643-645. | 0.7 | 6 |
| 67 | Comparative thickness measurements of SiO ₂ /Si films for thicknesses less than 10 nm. <i>Surface and Interface Analysis</i> , 2004, 36, 23-29. | 0.8 | 6 |
| 68 | Hydrogen distribution in Nb/Ta superlattices. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 255306. | 0.7 | 5 |
| 69 | Extending nanoscale spectroscopy with titanium nitride probes. <i>Journal of Raman Spectroscopy</i> , 2016, 47, 1332-1336. | 1.2 | 5 |
| 70 | Finite Thickness Effects on Nafion Water Uptake and Ionic Conductivity at Hydrophilic Substrate Interfaces, and Implications for PEMFC Performance. <i>ECS Transactions</i> , 2017, 80, 619-632. | 0.3 | 5 |
| 71 | The effect of transverse wavefront width on specular neutron reflection. <i>Journal of Applied Crystallography</i> , 2022, 55, 787-812. | 1.9 | 4 |
| 72 | Molecular beam epitaxial growth of Sb/GaSb multilayer structures: potential application as a narrow bandgap system. <i>Journal of Crystal Growth</i> , 1993, 127, 777-782. | 0.7 | 3 |

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|----|--|-----|-----------|
| 73 | Grazing-incidence neutron diffraction by thin films with resonance enhancement. Physical Review B, 1995, 52, 17501-17508. | 1.1 | 3 |
| 74 | Diffraction of neutron standing waves in thin films with resonance enhancement. Physica B: Condensed Matter, 1996, 221, 450-454. | 1.3 | 3 |
| 75 | The Center for Research on Extreme Batteries. Electrochemical Society Interface, 2016, 25, 26-29. | 0.3 | 3 |
| 76 | Origins of coercivity increase in annealed symmetric spin valves. IEEE Transactions on Magnetics, 1996, 32, 4636-4638. | 1.2 | 2 |
| 77 | Temperature dependence of the magnetic interlayer ordering in Fe(3) / V (14)Hx (001) superlattices. Superlattices and Microstructures, 2008, 43, 101-111. | 1.4 | 2 |
| 78 | Neutron Techniques as a Probe of Structure, Dynamics, and Transport in Polyelectrolyte Membranes. Neutron Scattering Applications and Techniques, 2015, , 273-301. | 0.2 | 2 |
| 79 | Direct, operando observation of the bilayer solid electrolyte interphase structure: Electrolyte reduction on a non-intercalating electrode. Journal of Power Sources, 2019, 412, . | 4.0 | 2 |
| 80 | Low-background neutron reflectometry from solid/liquid interfaces. Journal of Applied Crystallography, 2022, 55, 58-66. | 1.9 | 2 |
| 81 | A Neutron Reflectivity Study of the Interfacial Magnetism of an Y/Gd Film. Materials Research Society Symposia Proceedings, 1989, 166, 109. | 0.1 | 1 |
| 82 | Properties of InAs/(Ga, In)Sb strained layer superlattices grown on the {111} orientations. Journal of Electronic Materials, 1993, 22, 1087-1091. | 1.0 | 1 |
| 83 | Magnetoconductivity tensor analysis of anomalous transport effects in neutron irradiated HgCdTe epilayers. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 20, 246-250. | 1.3 | 1 |
| 84 | Diffusion of Selenium in Liquid-Phase Epitaxy-Grown Hg _{0.78} Cd _{0.22} Te. Journal of Electronic Materials, 2007, 36, 822-825. | 1.0 | 1 |
| 85 | Enhanced Conductivity via Homopolymer-Rich Pathways in Block Polymer-Blended Electrolytes. Macromolecules, 2019, 52, . | 2.2 | 0 |