Joseph A Dura

List of Publications by Year
in descending order

85 papers	5,667 citations	147801 31 h-index	76900 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. Nature Materials, 2018, 17, 543-549.	27.5	2,080
2	Asymmetric Magnetization Reversal in Exchange-Biased Hysteresis Loops. Physical Review Letters, 2000, 84, 3986-3989.	7.8	310
3	Liquid Structure with Nano-Heterogeneity Promotes Cationic Transport in Concentrated Electrolytes. ACS Nano, 2017, 11, 10462-10471.	14.6	283
4	Effect of Confinement on Structure, Water Solubility, and Water Transport in Nafion Thin Films. Macromolecules, 2012, 45, 7920-7930.	4.8	172
5	Reversible Tuning of the Magnetic Exchange Coupling in Fe/V (001) Superlattices Using Hydrogen. Physical Review Letters, 1997, 79, 901-904.	7.8	161
6	Multilamellar Interface Structures in Nafion. Macromolecules, 2009, 42, 4769-4774.	4.8	150
7	Solid Electrolyte Interphase in Li-Ion Batteries: Evolving Structures Measured In situ by Neutron Reflectometry. Chemistry of Materials, 2012, 24, 2133-2140.	6.7	149
8	Perovskite nickelates as electric-field sensors in salt water. Nature, 2018, 553, 68-72.	27.8	146
9	Critical review of the current status of thickness measurements for ultrathin SiO2 on Si Part V: Results of a CCQM pilot study. Surface and Interface Analysis, 2004, 36, 1269-1303.	1.8	138
10	AND/R: Advanced neutron diffractometer/reflectometer for investigation of thin films and multilayers for the life sciences. Review of Scientific Instruments, 2006, 77, 074301.	1.3	131
11	Hybrid Bilayer Membranes in Air and Water: Infrared Spectroscopy and Neutron Reflectivity Studies. Biophysical Journal, 1998, 74, 1388-1398.	0.5	126
12	Two-Stage Magnetization Reversal in Exchange Biased Bilayers. Physical Review Letters, 2001, 86, 4394-4397.	7.8	124
13	Magnetic Structure of Cr in Exchange Coupled Fe/Cr(001) Superlattices. Physical Review Letters, 1997, 79, 4914-4917.	7.8	113
14	Investigation of Hybrid Bilayer Membranes with Neutron Reflectometry:Â Probing the Interactions of Melittin. Langmuir, 2001, 17, 511-521.	3.5	91
15	Observation of Antiparallel Magnetic Order in Weakly Coupled Co/Cu Multilayers. Physical Review Letters, 1999, 82, 2796-2799.	7.8	88
16	Structure-property relationships at Nafion thin-film interfaces: Thickness effects on hydration and anisotropic ion transport. Nano Energy, 2018, 46, 91-100.	16.0	77
17	First-Principles Determination of Hybrid Bilayer Membrane Structure by Phase-Sensitive Neutron Reflectometry. Biophysical Journal, 2000, 79, 3330-3340.	0.5	71
18	Phase segregation of sulfonate groups in Nafion interface lamellae, quantified via neutron reflectometry fitting techniques for multi-layered structures. Soft Matter, 2014, 10, 5763-5776.	2.7	68

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19	Extraordinary alignment of Nb films with sapphire and the effects of added hydrogen. Physical Review B, 1992, 45, 11426-11429.	3.2	67
20	Structure and defects of MBE grown NbAl2O3 interfaces. Acta Metallurgica Et Materialia, 1992, 40, S217-S225.	1.8	62
21	Phase determination and inversion in specular neutron reflectometry. Physica B: Condensed Matter, 1998, 248, 338-342.	2.7	48
22	Quantifying and Suppressing Proton Intercalation to Enable Highâ€Voltage Znâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2102016.	19.5	48
23	Anomalous lattice expansion of metal-hydrogen thin films. Journal of Materials Research, 1991, 6, 964-968.	2.6	42
24	Epitaxial integration of single crystal C60. Applied Physics Letters, 1993, 63, 3443-3445.	3.3	42
25	Neutron reflectometry, x-ray reflectometry, and spectroscopic ellipsometry characterization of thin SiO2 on Si. Applied Physics Letters, 1998, 73, 2131-2133.	3.3	41
26	Surface-Induced Nanostructure and Water Transport of Thin Proton-Conducting Polymer Films. Macromolecules, 2013, 46, 5630-5637.	4.8	41
27	Ultraâ€thin SiO₂ on Si IX: absolute measurements of the amount of silicon oxide as a thickness of SiO₂ on Si. Surface and Interface Analysis, 2009, 41, 430-439.	1.8	39
28	Determination of the effective transverse coherence of the neutron wave packet as employed in reflectivity investigations of condensed-matter structures. I. Measurements. Physical Review A, 2014, 89, .	2.5	39
29	Quantifying Lithium Salt and Polymer Density Distributions in Nanostructured Ion-Conducting Block Polymers. Macromolecules, 2018, 51, 1917-1926.	4.8	39
30	Self assembly of magnetic nanoparticles at silicon surfaces. Soft Matter, 2015, 11, 4695-4704.	2.7	38
31	Water Uptake and Interfacial Structural Changes of Thin Film NafionÂ® Membranes Measured by Neutron Reflectivity for PEM Fuel Cells. ECS Transactions, 2008, 16, 1471-1485.	0.5	35
32	In Situ Neutron Techniques for Studying Lithium Ion Batteries. ACS Symposium Series, 2012, , 91-106.	0.5	31
33	Direct, operando observation of the bilayer solid electrolyte interphase structure: Electrolyte reduction on a non-intercalating electrode. Journal of Power Sources, 2019, 412, 725-735.	7.8	29
34	Tailoring Electrodeâ€“Electrolyte Interfaces in Lithium-Ion Batteries Using Molecularly Engineered Functional Polymers. ACS Applied Materials & Interfaces, 2021, 13, 9919-9931.	8.0	27
35	Porous Mg formation upon dehydrogenation of MgH₂ thin films. Journal of Applied Physics, 2011, 109, 093501.	2.5	26
36	Pore collapse and regrowth in silicon electrodes for rechargeable batteries. Physical Chemistry Chemical Physics, 2015, 17, 11301-11312.	2.8	26

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37	Enhanced Conductivity via Homopolymer-Rich Pathways in Block Polymer-Blended Electrolytes. Macromolecules, 2019, 52, 9682-9692.	4.8	26
38	In Situ Neutron Reflectometry Study of Solid Electrolyte Interface (SEI) Formation on Tungsten Thin-Film Electrodes. ACS Applied Materials & Interfaces, 2019, 11, 47553-47563.	8.0	25
39	Self-Assembled Layering of Magnetic Nanoparticles in a Ferrofluid on Silicon Surfaces. ACS Applied Materials & Interfaces, 2018, 10, 5050-5060.	8.0	22
40	Electrical-noise measurements on chromium films. Physical Review B, 1991, 44, 7413-7425.	3.2	21
41	Investigation of Sb/GaSb multilayer structures for potential application as an indirect narrow-bandgap material. Semiconductor Science and Technology, 1993, 8, S117-S120.	2.0	18
42	Spatially Resolved Potential and Li-Ion Distributions Reveal Performance-Limiting Regions in Solid-State Batteries. ACS Energy Letters, 2021, 6, 3944-3951.	17.4	18
43	Electron microscopy studies of Nb-Al2O3 interfaces formed by molecular beam epitaxy. Surface and Coatings Technology, 1990, 43-44, 199-212.	4.8	17
44	Tracking Solvent Distribution in Block Polymer Thin Films during Solvent Vapor Annealing with <i>in Situ</i> Neutron Scattering. Macromolecules, 2016, 49, 7525-7534.	4.8	16
45	Photoluminescence spectra of epitaxial single crystal C60. Chemical Physics Letters, 1995, 242, 592-597.	2.6	15
46	Unraveling the Complex Hydration Behavior of Ionomers under Thin Film Confinement. Journal of Physical Chemistry C, 2018, 122, 3471-3481.	3.1	15
47	Self-Assembly of Magnetic Nanoparticles in Ferrofluids on Different Templates Investigated by Neutron Reflectometry. Nanomaterials, 2020, 10, 1231.	4.1	15
48	Surface-induced heterophase fluctuation. Physical Review Letters, 1990, 65, 2692-2695.	7.8	14
49	Polarized neutron reflectivity characterization of weakly coupled Co/Cu multilayers. Physica B: Condensed Matter, 2000, 283, 162-166.	2.7	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. Langmuir, 2012, 28, 10504-10520.	3.5	14
51	Neutron reflectivity study of substrate surface chemistry effects on supported phospholipid bilayer formation on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mo		

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55	Neutron and X-ray reflectivity analysis of ceramic-metal materials. Thin Solid Films, 1999, 340, 153-158.	1.8	11
56	Deuterium-induced volume expansion inFe0.5V0.5/Vsuperlattices. Physical Review B, 2010, 82, .	3.2	11
57	Sb/GaSb heterostructures and multilayers. Applied Physics Letters, 1993, 63, 1098-1100.	3.3	10
58	Magnetic depth profiling Co/Cu multilayers to investigate magnetoresistance (invited). Journal of Applied Physics, 2000, 87, 6639-6643.	2.5	10
59	Structure and Conductivity of Epitaxial Thin Films of In-Doped BaZrO₃-Based Proton Conductors. Journal of Physical Chemistry C, 2016, 120, 28415-28422.	3.1	10
60	Nanoconfinement-Induced Phase Segregation of Binary Benzeneâ€“Cyclohexane Solutions within a Chemically Inert Matrix. Journal of Physical Chemistry C, 2018, 122, 7676-7684.	3.1	10
61	Nuclear Spin Incoherent Neutron Scattering from Quantum Well Resonators. Physical Review Letters, 2019, 123, 016101.	7.8	9
62	A neutron reflectivity study of the interfacial and thermal behaviour of surface-attached hairpin DNA. Soft Matter, 2011, 7, 5020.	2.7	8
63	Layering of magnetic nanoparticles at amorphous magnetic templates with perpendicular anisotropy. Soft Matter, 2020, 16, 7676-7684.	2.7	8
64	A molecular beam epitaxy facility for in situ neutron scattering. Review of Scientific Instruments, 2009, 80, 073906.	1.3	7
65	Communication: Nanoscale ion fluctuations in Nafion polymer electrolyte. Journal of Chemical Physics, 2014, 141, 071102.	3.0	7
66	Structural characterization of Nb on sapphire as a buffer layer for MBE growth. Journal of Crystal Growth, 1993, 127, 643-645.	1.5	6
67	Comparative thickness measurements of SiO2 /Si films for thicknesses less than 10 nm. Surface and Interface Analysis, 2004, 36, 23-29.	1.8	6
68	Hydrogen distribution in Nb/Ta superlattices. Journal of Physics Condensed Matter, 2012, 24, 255306.	1.8	5
69	Extending nanoscale spectroscopy with titanium nitride probes. Journal of Raman Spectroscopy, 2016, 47, 1332-1336.	2.5	5
70	Finite Thickness Effects on Nafion Water Uptake and Ionic Conductivity at Hydrophilic Substrate Interfaces, and Implications for PEMFC Performance. ECS Transactions, 2017, 80, 619-632.	0.5	5
71	The effect of transverse wavefront width on specular neutron reflection. Journal of Applied Crystallography, 2022, 55, 787-812.	4.5	4
72	Molecular beam epitaxial growth of Sb/GaSb multilayer structures: potential application as a narrow bandgap system. Journal of Crystal Growth, 1993, 127, 777-782.	1.5	3

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73	Grazing-incidence neutron diffraction by thin films with resonance enhancement. Physical Review B, 1995, 52, 17501-17508.	3.2	3
74	Diffraction of neutron standing waves in thin films with resonance enhancement. Physica B: Condensed Matter, 1996, 221, 450-454.	2.7	3
75	The Center for Research on Extreme Batteries. Electrochemical Society Interface, 2016, 25, 26-29.	0.4	3
76	Origins of coercivity increase in annealed symmetric spin valves. IEEE Transactions on Magnetics, 1996, 32, 4636-4638.	2.1	2
77	Temperature dependence of the magnetic interlayer ordering in Fe(3) / V (14)Hx (001) superlattices. Superlattices and Microstructures, 2008, 43, 101-111.	3.1	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, .	7.8	2
80	Low-background neutron reflectometry from solid/liquid interfaces. Journal of Applied Crystallography, 2022, 55, 58-66.	4.5	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.	2.2	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.	2.7	1
84	Diffusion of Selenium in Liquid-Phase Epitaxyâ€“Grown Hg0.78Cd0.22Te. Journal of Electronic Materials, 2007, 36, 822-825.	2.2	1
85	Enhanced Conductivity via Homopolymer-Rich Pathways in Block Polymer-Blended Electrolytes. Macromolecules, 2019, 52, .	4.8	0