Trevor A Tyson

List of Publications by Year
in descending order

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99 papers	4,150 citations	126708 33 h-index	114278 63 g-index
103 all docs	103 docs citations	103 times ranked	6051 citing authors

#	Article	IF	Citations
1	Amorphous Hierarchical Porous GeO_x as High-Capacity Anodes for Li Ion Batteries with Very Long Cycling Life. Journal of the American Chemical Society, 2011, 133, 20692-20695.	6.6	288
2	Promotion of water-mediated carbon removal by nanostructured barium oxide/nickel interfaces in solid oxide fuel cells. Nature Communications, 2011, 2, 357.	5.8	280
3	Investigation of structural and electronic properties of graphene oxide. Applied Physics Letters, 2011, 99, .	1.5	252
4	Anomalous Pseudocapacitive Behavior of a Nanostructured, Mixed-Valent Manganese Oxide Film for Electrical Energy Storage. Nano Letters, 2012, 12, 3483-3490.	4.5	234
5	General multiple-scattering scheme for the computation and interpretation of x-ray-absorption fine structure in atomic clusters with applications toSF6,GeCl4, andBr2molecules. Physical Review B, 1992, 46, 5997-6019.	1.1	217
6	X-ray absorption study of Ti-activated sodium aluminum hydride. Applied Physics Letters, 2004, 85, 500-502.	1.5	189
7	High carrier mobility in transparent Ba1â^'xLaxSnO3 crystals with a wide band gap. Applied Physics Letters, 2012, 100, .	1.5	170
8	â€œAb-initioâ€•modelling of x-ray absorption spectra. Solid State Communications, 1991, 78, 265-268.	0.9	121
9	Investigation of the Local Structure of Graphene Oxide. Journal of Physical Chemistry Letters, 2010, 1, 3433-3437.	2.1	115
10	A large reservoir of sulfate and sulfonate resides within plasma cells from ascidia ceratodes, revealed by x-ray absorption near-edge structure spectroscopy. Biochemistry, 1987, 26, 4975-4979.	1.2	97
11	Constructing 2D MOFs from 2D LDHs: a highly efficient and durable electrocatalyst for water oxidation. Journal of Materials Chemistry A, 2020, 8, 190-195.	5.2	93
12	Unveiling hidden ferrimagnetism and giant magnetoelectricity in polar magnet Fe2Mo3O8. Scientific Reports, 2015, 5, 12268.	1.6	92
13	Nanospheres of a New Intermetallic FeSn₅ Phase: Synthesis, Magnetic Properties and Anode Performance in Li-ion Batteries. Journal of the American Chemical Society, 2011, 133, 11213-11219.	6.6	88
14	Modeling Pb sorption to microporous amorphous oxides as discrete particles and coatings. Journal of Colloid and Interface Science, 2005, 281, 39-48.	5.0	86
15	Surface complexation of Pb(II) on amorphous iron oxide and manganese oxide: Spectroscopic and time studies. Journal of Colloid and Interface Science, 2006, 299, 28-40.	5.0	82
16	An Analysis of Zinc Sorption to Amorphous versus Crystalline Iron Oxides Using XAS. Journal of Colloid and Interface Science, 2001, 244, 230-238.	5.0	75
17	An XAFS Analysis of Strontium at the Hydrous Ferric Oxide Surface. Journal of Colloid and Interface Science, 1998, 199, 44-52.	5.0	72
18	Bulk Magnetic Order in a Two-Dimensional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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19	Pressure effects on charge, spin, and metal-insulator transitions in the narrow bandwidth manganitePr1â^'xCaxMnO3. Physical Review B, 2004, 70, .	1.1	67
20	Influence of double-electron transitions on the EXAFSLedges of rare-earth systems. Physical Review B, 1994, 49, 11652-11661.	1.1	58
21	XAS Studies of Ni and Zn Sorbed to Hydrous Manganese Oxide. Environmental Science & Technology, 2001, 35, 4515-4521.	4.6	58
22	Ni(II) complexation to amorphous hydrous ferric oxide: An X-ray absorption spectroscopy study. Journal of Colloid and Interface Science, 2007, 314, 10-17.	5.0	51
23	Corrosion behaviour of magnetron sputtered Î±- and Î²-Ta coatings on AISI 4340 steel as a function of coating thickness. Corrosion Science, 2006, 48, 2154-2171.	3.0	50
24	Polarized experimental and theoreticalK-edge x-ray absorption studies ofSO42â^',ClO3â^',S2O32â^', andS2O62â^'. Physical Review B, 1989, 39, 6305-6315.	1.1	49
25	Investigation of the structure of Î²-tantalum. Thin Solid Films, 2003, 437, 116-122.	0.8	45
26	Local Structure Analysis of Strontium Sorption to Hydrous Manganese Oxide. Journal of Colloid and Interface Science, 2000, 224, 408-416.	5.0	43
27	The structure and stability of Î²-Ta thin films. Thin Solid Films, 2005, 479, 166-173.	0.8	43
28	Insights on the Atomic and Electronic Structure of Boron Nanoribbons. Physical Review Letters, 2010, 104, 245502.	2.9	39
29	On the origin of enhanced thermoelectricity in Fe doped Ca3Co4O9. Journal of Materials Chemistry C, 2013, 1, 4114.	2.7	39
30	Possible Bose-condensate behavior in a quantum phase originating in a collective excitation in the chemically and optically doped Mott-Hubbard system UO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>+</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>. Physical Review B, 2013, 88, .	1.1	39
31	Double-electron excitation channels at theLedges of atomic Hg. Physical Review A, 1993, 48, 2098-2101.	1.0	38
32	KLedges in x-ray-absorption spectra of third-period atoms: Si, P, S, and Cl. Physical Review A, 1993, 48, 1328-1338.	1.0	37
33	Effects of pressure on electron transport and atomic structure of manganites: Low to high pressure regimes. Physical Review B, 2003, 67, .	1.1	35
34	Uncovering the mystery of ferroelectricity in zero dimensional nanoparticles. Nanoscale Advances, 2019, 1, 664-670.	2.2	35
35	Correlations between pressure and bandwidth effects in metalâ€“insulator transitions in manganites. Applied Physics Letters, 2004, 84, 942-944.	1.5	34
36	Transport and structural study of pressure-induced magnetic states inNd0.55Sr0.45MnO3andNd0.5Sr0.5MnO3. Physical Review B, 2003, 68, .	1.1	33

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37	Nickel and lead sequestration in manganese oxide-coated montmorillonite. Journal of Colloid and Interface Science, 2006, 303, 87-98.	5.0	33
38	Interacting Quasi-Two-Dimensional Sheets of Interlinked Carbon Nanotubes: A High-Pressure Phase of Carbon. ACS Nano, 2010, 4, 3515-3521.	7.3	29
39	ASIC for SDD-Based X-Ray Spectrometers. IEEE Transactions on Nuclear Science, 2010, 57, 1654-1663.	1.2	28
40	High-Pressure Synthesis of Lu₂NiIrO₆ with Ferrimagnetism and Large Coercivity. Inorganic Chemistry, 2019, 58, 397-404.	1.9	28
41	Synthesis and Structure of Perovskite ScMnO₃. Inorganic Chemistry, 2013, 52, 9692-9697.	1.9	27
42	Relative cross sections for bound-state double-electronLN4,5-edge transitions. Physical Review B, 1994, 49, 5869-5875.	1.1	26
43	A structural change in Ca₃Co₄O₉associated with enhanced thermoelectric properties. Journal of Physics Condensed Matter, 2012, 24, 455602.	0.7	26
44	Ab initio density functional studies of the restructuring of graphene nanoribbons to form tailored single walled carbon nanotubes. Carbon, 2010, 48, 1153-1158.	5.4	25
45	Pressure-induced re-entrant electronic and magnetic state in Pr0.7Ca0.3MnO3 manganite. Applied Physics Letters, 2003, 83, 2856-2858.	1.5	24
46	An Investigation of Structures of Thermal and Anodic Tantalum Oxide Films. Journal of the Electrochemical Society, 2005, 152, B60.	1.3	23
47	Local magnetic ordering in La1â^'xCaxMnO3 determined by spin-polarized x-ray absorption spectroscopy. Applied Physics Letters, 2002, 80, 3141-3143.	1.5	22
48	Theory of the structural phases of group 5Bâ€“6B metals and their transport properties. Journal of Applied Physics, 2003, 93, 4543-4560.	1.1	21
49	Corrosion behaviour of electrodeposited and sputtered Cr coatings and sputtered Ta coatings with Î± and Î² phases. Surface and Coatings Technology, 2006, 200, 5767-5777.	2.2	21
50	Iron site geometry in orthopyroxene: Multiple scattering calculations and XANES study. Physics and Chemistry of Minerals, 1994, 21, 299.	0.3	19
51	Development and Application of Computer Simulation Tools for Ecological Risk Assessment. Environmental Modeling and Assessment, 2003, 8, 311-322.	1.2	18
52	Ab initio EXAFS and multiple scattering analysis of SF6. Physica B: Condensed Matter, 1989, 158, 425-427.	1.3	17
53	Using a probabilistic approach in an ecological risk assessment simulation tool: test case for depleted uranium (DU). Chemosphere, 2005, 60, 111-125.	4.2	17
54	Relativistic effects in the x-ray-absorption fine structure. Physical Review B, 1994, 49, 12578-12589.	1.1	16

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55	Strong Electron Hybridization and Fermi-to-Non-Fermi Liquid Transition in LaCu₃Ir₄O₁₂. Chemistry of Materials, 2015, 27, 211-217.	3.2	16
56	Thermal effects in the x-ray spectra ofLa1â^'xCaxMnO3. Physical Review B, 2000, 62, 13472-13481.	1.1	15
57	Evidence for spin clusters and glassy behaviour in Bi1ÂxCaxMnO3(xÂ 0.875). Journal of Physics Condensed Matter, 2004, 16, 2689-2705.	0.7	15
58	Average and Local Crystal Structures of (Ga_{1â€“x}Zn_x)(N_{1â€“x}O_x) Solid Solution Nanoparticles. Inorganic Chemistry, 2015, 54, 11226-11235.	1.9	15
59	On the Amplitudes of EXAFS Spectra at the L Edges. Japanese Journal of Applied Physics, 1993, 32, 107.	0.8	15
60	Ferroelectricity in single crystal InMnO₃. Applied Physics Letters, 2013, 102, 172901.	1.5	13
61	A Pressureâ€Induced Inverse Orderâ€“Disorder Transition in Double Perovskites. Angewandte Chemie - International Edition, 2020, 59, 8240-8246.	7.2	13
62	The stability of the Î²-phase of tantalum: a molecular dynamics study. Journal of Physics Condensed Matter, 2005, 17, 1841-1850.	0.7	12
63	Corrosion behavior of magnetron sputtered Î±-Ta coatings on smooth and rough steel substrates. Surface and Coatings Technology, 2006, 200, 5717-5724.	2.2	12
64	Temperature-dependent local structure of LaFeAsO1â^'xFx: Probing the atomic correlations. Journal of Applied Physics, 2010, 108, 123715.	1.1	12
65	Valence measurement of Mn oxides using Mn KÎ² emission spectroscopy. Journal of Physics and Chemistry of Solids, 2000, 61, 457-460.	1.9	10
66	The structure of small Ta clusters. Journal of Physics Condensed Matter, 2005, 17, 6111-6121.	0.7	10
67	The impact of Mn oxide coatings on Zn distribution. Journal of Colloid and Interface Science, 2006, 298, 615-623.	5.0	10
68	Polar state in freestanding strontium titanate nanoparticles. Applied Physics Letters, 2014, 105, 091901.	1.5	10
69	High-pressure X-ray near-edge absorption study of thallium rhenium oxide up to 10.86â€ŠGPa. High Pressure Research, 2003, 23, 471-476.	0.4	9
70	High-efficiency high-energy-resolution spectrometer for inelastic X-ray scattering. Journal of Physics and Chemistry of Solids, 2005, 66, 2295-2298.	1.9	9
71	Local Atomic Structure of Partially Ordered NiMn in NiMn/NiFe Exchange Coupled Layers:Â 1. XAFS Measurements and Structural Refinement. Journal of Physical Chemistry B, 2005, 109, 10406-10418.	1.2	9
72	Origin of the non-linear pressure effects in perovskite manganites: Buckling of Mnâ€“Oâ€“Mn bonds and Jahnâ€“Teller distortion of the MnO6 octahedra induced by pressure. Journal of Magnetism and Magnetic Materials, 2010, 322, 3049-3052.	1.0	9

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73	Highâ€Resolution Inâ€Situ Synchrotron Xâ€Ray Studies of Inorganic Perovskite CsPbBr₃: New Symmetry Assignments and Structural Phase Transitions. Advanced Science, 2021, 8, e2003046.	5.6	9
74	A Polar Magnetic and Insulating Double Corundum Oxide: Mn₂MnSbO₆ with Ordered Mn(II) and Mn(III) Ions. Chemistry of Materials, 2021, 33, 6522-6529.	3.2	9
75	Multielectron Excitations at the L Absorption Edge of Rare Earths. Japanese Journal of Applied Physics, 1993, 32, 61.	0.8	8
76	Structural phase transitions in SrTiO3 nanoparticles. Applied Physics Letters, 2017, 111, .	1.5	6
77	High-Pressure Synthesis and Ferrimagnetism of Ni₃TeO₆-Type Mn₂ScMO₆ (M = Nb, Ta). Inorganic Chemistry, 2019, 58, 15953-15961.	1.9	6
78	Magnetic transitions in exotic perovskites stabilized by chemical and physical pressure. Journal of Materials Chemistry C, 2020, 8, 5082-5091.	2.7	6
79	Structural, magnetic, and transport studies of La0.8MnO3 films. Journal of Applied Physics, 2002, 92, 4518-4523.	1.1	5
80	Structural studies of annealed ultrathin La0.8MnO3 films. Applied Physics Letters, 2002, 80, 2663-2665.	1.5	5
81	Influence of strain on the atomic and electronic structure of manganite films. Journal of Physics and Chemistry of Solids, 2007, 68, 458-463.	1.9	5
82	Observation of ferromagnetic clusters in Bi0.125Ca0.875MnO3. Journal of Physics Condensed Matter, 2008, 20, 195209.	0.7	5
83	Local structure of multiferroic RMn2O5: Important role of the R site. Journal of Magnetism and Magnetic Materials, 2009, 321, 1714-1718.	1.0	5
84	Tl₂Ir₂O₇: A Pauli Paramagnetic Metal, Proximal to a Metal Insulator Transition. Inorganic Chemistry, 2021, 60, 4424-4433.	1.9	5
85	ASIC for SDD-based X-ray spectrometers. , 2009, , .		4
86	Absence of significant structural changes near the magnetic ordering temperature in small-ion rare earth perovskiteRMnO3. Journal of Physics Condensed Matter, 2014, 26, 495402.	0.7	4
87	Observation of anomalous phonons in orthorhombic rare-earth manganites. Applied Physics Letters, 2010, 97, 262905.	1.5	3
88	Structural features associated with multiferroic behavior in the RX₃(BO₃)₄ system. Journal of Physics Condensed Matter, 2019, 31, 505704.	0.7	3
89	A study of the electronic structure of S2O62- polarized K-edge X-ray absorption spectroscopy. Physica B: Condensed Matter, 1989, 158, 398-399.	1.3	1
90	Relative Cross-Sections for Bound State Double-Electron LN-edge Transitions. Japanese Journal of Applied Physics, 1993, 32, 67.	0.8	1

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91	Comparison of K- and L3-edges of ClO3â¯: Evidence for mixed electronic and multiple scattering effects. Physica B: Condensed Matter, 1995, 208-209, 611-613.	1.3	1
92	Observation of strain and temperature induced changes in the band structure of thin La0.8MnO3â¯Î´ films. Applied Physics Letters, 2007, 90, 101915.	1.5	1
93	Direct extraction of quantitative structural information from x-ray fluorescence holograms using spherical-harmonic analysis. Physical Review B, 2012, 85, .	1.1	1
94	A Pressureâ€Induced Inverse Orderâ€“Disorder Transition in Double Perovskites. Angewandte Chemie, 2020, 132, 8317-8323.	1.6	1
95	Laura Mgrdichian National Synchrotron Light Source, Brookhaven National Laboratory. Synchrotron Radiation News, 2004, 17, 13-29.	0.2	0
96	Meeting Report: Chemical and Biological Applications of X-ray Emission Spectroscopy. Synchrotron Radiation News, 2006, 19, 39-40.	0.2	0
97	A 256-channel (element) correlator design based on an FPGA for X-ray Photon Correlation Spectroscopy. , 2011, , .		0
98	A Switcher ASIC Design for Use in a Charge-Pump Detector. IEEE Transactions on Nuclear Science, 2012, 59, 3205-3212.	1.2	0
99	InnenrÃ¼cktitelbild: A Pressureâ€Induced Inverse Orderâ€“Disorder Transition in Double Perovskites (Angew. Chem. 21/2020). Angewandte Chemie, 2020, 132, 8378-8378.	1.6	0