Andrew G Thomas

List of Publications by Year
in descending order

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114 papers	3,267 citations	159585 30 h-index	175258 52 g-index
116 all docs	116 docs citations	116 times ranked	5199 citing authors

#	Article	IF	Citations
1	Comparison of the electronic structure of anatase and rutileTiO2single-crystal surfaces using resonant photoemission and x-ray absorption spectroscopy. Physical Review B, 2007, 75, .	3.2	249
2	Adsorption of organic molecules on rutile TiO2 and anatase TiO2 single crystal surfaces. Chemical Society Reviews, 2012, 41, 4207.	38.1	234
3	Nanostructured Aptamer-Functionalized Black Phosphorus Sensing Platform for Label-Free Detection of Myoglobin, a Cardiovascular Disease Biomarker. ACS Applied Materials & Interfaces, 2016, 8, 22860-22868.	8.0	208
4	Photoelectron Spectroscopy Study of Stoichiometric and Reduced Anatase TiO₂(101) Surfaces: The Effect of Subsurface Defects on Water Adsorption at Near-Ambient Pressures. Journal of Physical Chemistry C, 2015, 119, 13682-13690.	3.1	195
5	Dopamine Adsorption on Anatase TiO₂(101): A Photoemission and NEXAFS Spectroscopy Study. Langmuir, 2010, 26, 14548-14555.	3.5	85
6	Ambient-air-stable inorganic Cs₂SnI₆double perovskite thin filmsviaaerosol-assisted chemical vapour deposition. Journal of Materials Chemistry A, 2018, 6, 11205-11214.	10.3	85
7	In situ investigation of degradation at organometal halide perovskite surfaces by X-ray photoelectron spectroscopy at realistic water vapour pressure. Chemical Communications, 2017, 53, 5231-5234.	4.1	78
8	Surface characterization of zirconia dental implants. Dental Materials, 2010, 26, 295-305.	3.5	75
9	Preparation of Ligand-Free TiO₂ (Anatase) Nanoparticles through a Nonaqueous Process and Their Surface Functionalization. Langmuir, 2008, 24, 6988-6997.	3.5	68
10	An Experimental Investigation of the Adsorption of a Phosphonic Acid on the Anatase TiO₂(101) Surface. Journal of Physical Chemistry C, 2016, 120, 1693-1700.	3.1	66
11	Oxygen-vacancy sites onTiO2(100)1Ã—3 using surface core-level-shift photoelectron diffraction. Physical Review B, 1993, 47, 16056-16059.	3.2	61
12	Time-resolved surface photovoltage measurements at<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type photovoltaic surfaces: Si(111) and ZnO(10<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mover) Tj ETQq0 0 0 rgBT /Overlock 10	3.2	61
13	Review B, 2013, 88, . Adsorbate-Induced Modification of Surface Electronic Structure: Pyrocatechol Adsorption on the Anatase TiO₂ (101) and Rutile TiO₂ (110) Surfaces. Journal of Physical Chemistry C, 2012, 116, 23515-23525.	3.1	57
14	Adsorption Studies of p-Aminobenzoic Acid on the Anatase TiO₂(101) Surface. Langmuir, 2014, 30, 12306-12314.	3.5	55
15	Organic template-assisted green synthesis of CoMoO₄ nanomaterials for the investigation of energy storage properties. RSC Advances, 2020, 10, 8115-8129.	3.6	52
16	Corrosion protection of carbon steel by tetraphosphonates of systematically different molecular size. Corrosion Science, 2018, 145, 135-150.	6.6	51
17	Facile ZnO-based nanomaterial and its fabrication as a supercapacitor electrode: synthesis, characterization and electrochemical studies. RSC Advances, 2021, 11, 23374-23384.	3.6	50
18	Green synthesis of ZnOâ€“Co₃O₄ nanocomposite using facile foliar fuel and investigation of its electrochemical behaviour for supercapacitors. New Journal of Chemistry, 2020, 44, 18281-18292.	2.8	46

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19	Optical and electrical studies of CdS thin films with thickness variation. Optik, 2018, 158, 1558-1566.	2.9	44
20	Towards substrate engineering of grapheneâ€“silicon Schottky diode photodetectors. Nanoscale, 2018, 10, 3399-3409.	5.6	43
21	Resonant photoemission of single-crystal RBaCo2O5+Î´ (R=Gd, Dy). Physical Review B, 2004, 70, .	3.2	41
22	Electronic properties of the interface between p-CuI and anatase-phase n-TiO2 single crystal and nanoparticulate surfaces: A photoemission study. Journal of Chemical Physics, 2007, 127, 114703.	3.0	40
23	Exploring the versatility of liquid phase exfoliation: producing 2D nanosheets from talcum powder, cat litter and beach sand. 2D Materials, 2017, 4, 025054.	4.4	39
24	Functionalization of MoO3NiMoO4 nanocomposite using organic template for energy storage application. Journal of Energy Storage, 2020, 29, 101309.	8.1	38
25	Photoemission and HREELS study of K adsorption on TiO2(100). Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3569-3573.	1.7	37
26	Adsorption of phenylalanine on single crystal rutile TiO2(110) surface. Surface Science, 2007, 601, 3828-3832.	1.9	37
27	Structure and Reactivity of a Model Oxide Supported Silver Nanocluster Catalyst Studied by Near Ambient Pressure X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 21383-21389.	3.1	37
28	Modified sol-gel synthesis of Co3O4 nanoparticles using organic template for electrochemical energy storage. Energy, 2021, 218, 119502.	8.8	36
29	Inelastic background modelling applied to hard X-ray photoelectron spectroscopy of deeply buried layers: A comparison of synchrotron and lab-based (9.25ÂkeV) measurements. Applied Surface Science, 2021, 541, 148635.	6.1	35
30	Versailles Project on Advanced Materials and Standards Interlaboratory Study on Measuring the Thickness and Chemistry of Nanoparticle Coatings Using XPS and LEIS. Journal of Physical Chemistry C, 2016, 120, 24070-24079.	3.1	33
31	Effect of NiO on organic framework functionalized ZnO nanoparticles for energy storage application. International Journal of Energy Research, 2020, 44, 5259-5271.	4.5	29
32	Black phosphorus with near-superhydrophobic properties and long-term stability in aqueous media. Chemical Communications, 2018, 54, 3831-3834.	4.1	28
33	A molecular precursor route to quaternary chalcogenide CFTS (Cu2FeSnS4) powders as potential solar absorber materials. RSC Advances, 2019, 9, 24146-24153.	3.6	28
34	Renewable Adsorbent for the Separation of Surfactant-Stabilized Oil in Water Emulsions Based on Nanostructured Sawdust. ACS Sustainable Chemistry and Engineering, 2019, 7, 18935-18942.	6.7	28
35	Adsorption of bi-isonicotinic acid on anatase TiO2(101) and (001) studied by photoemission and NEXAFS spectroscopy. Surface Science, 2005, 592, 159-168.	1.9	27
36	Using Soft Polymer Template Engineering of Mesoporous TiO₂ Scaffolds to Increase Perovskite Grain Size and Solar Cell Efficiency. ACS Applied Materials & Interfaces, 2020, 12, 18578-18589.	8.0	27

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37	Toward optimizing dental implant performance: Surface characterization of Ti and TiZr implant materials. Dental Materials, 2017, 33, 43-53.	3.5	26
38	Flexible nanoporous activated carbon for adsorption of organics from industrial effluents. Nanoscale, 2021, 13, 15311-15323.	5.6	26
39	Photoemission studies of single crystal CuO(100). Journal of Physics Condensed Matter, 1999, 11, 5021-5043.	1.8	24
40	Sustainable synthesis of organic framework-derived ZnO nanoparticles for fabrication of supercapacitor electrode. Environmental Technology (United Kingdom), 2022, 43, 605-616.	2.2	24
41	Bioinspired scaffolds that sequester lead ions in physically damaged high efficiency perovskite solar cells. Chemical Communications, 2021, 57, 994-997.	4.1	24
42	Dual Functionalization of Liquidâ€Exfoliated Semiconducting 2Hâ€MoS₂ with Lanthanide Complexes Bearing Magnetic and Luminescence Properties. Advanced Functional Materials, 2017, 27, 1703646.	14.9	23
43	Adsorption of H2O on single crystal CuO. Surface Science, 1999, 436, 1-8.	1.9	22
44	An ex situ study of the adsorption of calcium phosphate from solution onto TiO2(110) and Al2O3(0001). Surface Science, 2016, 646, 146-153.	1.9	22
45	Organic template-based ZnO embedded Mn₃O₄ nanoparticles: synthesis and evaluation of their electrochemical properties towards clean energy generation. RSC Advances, 2020, 10, 9854-9867.	3.6	21
46	Effects of bioactive compounds on the morphology and surface chemistry of MoO3/ZnMoO4 nanocomposite for supercapacitor. Journal of Materials Science, 2020, 55, 7743-7759.	3.7	21
47	Homologous alkyl side-chain diphosphonate inhibitors for the corrosion protection of carbon steels. Chemical Engineering Journal, 2021, 405, 126864.	12.7	21
48	Versailles Project on Advanced Materials and Standards interlaboratory study on intensity calibration for x-ray photoelectron spectroscopy instruments using low-density polyethylene. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, 063208.	2.1	21
49	Controlling the Thermoelectric Properties of Nb-Doped TiO₂ Ceramics through Engineering Defect Structures. ACS Applied Materials & Interfaces, 2021, 13, 57326-57340.	8.0	21
50	Dynamics in next-generation solar cells: time-resolved surface photovoltage measurements of quantum dots chemically linked to ZnO (101ì„0). Faraday Discussions, 2014, 171, 275-298.	3.2	20
51	Design-controlled synthesis of IrO₂ sub-monolayers on Au nanoflowers: marrying plasmonic and electrocatalytic properties. Nanoscale, 2020, 12, 12281-12291.	5.6	20
52	Electronic structure, reactivity and solid-state chemistry of La2 â€“xSrxNi1 â€“yFeyO4 +Î´. Faraday Discussions, 1996, 105, 337-354.	3.2	19
53	PEGylation of Nanosubstrates (Titania) with Multifunctional Reagents: At the Crossroads between Nanoparticles and Nanocomposites. Langmuir, 2012, 28, 11490-11501.	3.5	19
54	The effect of Eu doping on the growth, structure and red-ox activity of ceria nanocubes. CrystEngComm, 2018, 20, 1698-1704.	2.6	19

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55	Adsorption of Dopamine on Rutile TiO₂ (110): A Photoemission and Near-Edge X-ray Absorption Fine Structure Study. Langmuir, 2014, 30, 8761-8769.	3.5	18
56	A bilayer TiO₂/Al₂O₃ as the mesoporous scaffold for enhanced air stability of ambient-processed perovskite solar cells. Materials Advances, 2020, 1, 2057-2067.	5.4	18
57	Semi-conducting Ni/Zn nano-hybridsâ€™ driven efficient electro-catalytic performance: fabrication, characterization, and electrochemical featuresâ€™ elucidation. Green Chemistry Letters and Reviews, 2021, 14, 286-301.	4.7	18
58	Chemically-specific time-resolved surface photovoltage spectroscopy: Carrier dynamics at the interface of quantum dots attached to a metal oxide. Surface Science, 2015, 641, 320-325.	1.9	17
59	Ionic Liquid Ordering at an Oxide Surface. ChemPhysChem, 2016, 17, 3430-3434.	2.1	17
60	Evaluation of electrochemical properties for water splitting by NiO nano-cubes synthesized using Olea ferruginea Royle. Sustainable Energy Technologies and Assessments, 2020, 40, 100753.	2.7	16
61	Role of Alkali Cations in Stabilizing Mixed-Cation Perovskites to Thermal Stress and Moisture Conditions. ACS Applied Materials & Interfaces, 2021, 13, 43573-43586.	8.0	16
62	Phyto-inspired and scalable approach for the synthesis of PdOâ€“2Mn₂O₃: a nano-material for application in water splitting electro-catalysis. RSC Advances, 2020, 10, 29961-29974.	3.6	15
63	Reduced electrical performance of Zn enriched ZnTe nanoinclusion semiconductors thin films for buffer layer in solar cells. Journal Physics D: Applied Physics, 2017, 50, 255503.	2.8	14
64	Surface Engineering of Ceramic Nanomaterials for Separation of Oil/Water Mixtures. Frontiers in Chemistry, 2020, 8, 578.	3.6	14
65	Electronic structure and surface reactivity of La1-xSrxCoO3. Faraday Discussions, 1999, 114, 407-420.	3.2	13
66	Resonance photoemission of LaCoO3(111) and La0.9Sr0.1CoO3(111). Journal of Physics Condensed Matter, 2000, 12, 9259-9279.	1.8	13
67	A one-step laser process for rapid manufacture of mesoscopic perovskite solar cells prepared under high relative humidity. Sustainable Energy and Fuels, 2018, 2, 1216-1224.	4.9	13
68	Air-Stable Methylammonium Lead Iodide Perovskite Thin Films Fabricated via Aerosol-Assisted Chemical Vapor Deposition from a Pseudohalide Pb(SCN)₂ Precursor. ACS Applied Energy Materials, 2019, 2, 6012-6022.	5.1	13
69	Rapid and Low-Temperature Molecular Precursor Approach toward Ternary Layered Metal Chalcogenides and Oxides: Mo_{1â€“x}W_xS₂ and Mo_{1â€“x}W_xO₃ Alloys (0 â‰¤ x â‰¤ 1). Chemistry of Materials, 2020, 32, 7895-7907.	6.7	13
70	Adsorption and stability of malonic acid on rutile TiO2 (110), studied by near edge X-ray absorption fine structure and photoelectron spectroscopy. Surface Science, 2014, 626, 14-20.	1.9	11
71	Role of Ag1+ substitutional defects on the electronic and optical properties of n-type CdS thin films semiconductor for sustainable and stable window layer in solar cells technology. Optical Materials, 2018, 85, 143-152.	3.6	11
72	Adsorption site, orientation and alignment of NO adsorbed on Au(100) using 3D-velocity map imaging, X-ray photoelectron spectroscopy and density functional theory. Physical Chemistry Chemical Physics, 2019, 21, 10939-10946.	2.8	11

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73	Impact of halide additives on green antisolvent and high-humidity processed perovskite solar cells. Applied Surface Science, 2021, 536, 147949.	6.1	11
74	Laser-Assisted Ultrafast Fabrication of Crystalline Ta-Doped TiO₂ for High-Humidity-Processed Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2022, 14, 15141-15153.	8.0	11
75	Electrochemical energy storage by nanosized MoO3/PdO material: Investigation of its structural, optical and electrochemical properties for supercapacitor. Journal of Energy Storage, 2021, 36, 102447.	8.1	10
76	Near-Ambient Pressure XPS and NEXAFS Study of a Superbasic Ionic Liquid with CO₂. Journal of Physical Chemistry C, 2021, 125, 22778-22785.	3.1	10
77	Biomimmetic <scp> ZrO ₂ </scp> @ <scp>PdO</scp> nanocomposites: fabrication, characterization, and water splitting potential exploration. International Journal of Energy Research, 2022, 46, 8516-8526.	4.5	10
78	Electrochemical trapping of meta-stable NiO consolidated ZnO/PdO by biomimetic provenance for the employment of clean energy generation. Materials Science in Semiconductor Processing, 2022, 150, 106867.	4.0	10
79	Multitechnique characterization of CPTi surfaces after electro discharge machining (EDM). Clinical Oral Investigations, 2014, 18, 67-75.	3.0	9
80	Wet chemically prepared rutile TiO2(110) and TiO2(011): Substrate preparation for surface studies under non-UHV conditions. Surface Science, 2014, 630, 41-45.	1.9	9
81	Pyrocatechol as a surface capping molecule on rutile TiO2 (110). Surface Science, 2012, 606, 273-277.	1.9	8
82	Water-induced reordering in ultrathin ionic liquid films. Journal of Physics Condensed Matter, 2018, 30, 334003.	1.8	8
83	Chemical vapour deposition of chromium-doped tungsten disulphide thin films on glass and steel substrates from molecular precursors. Journal of Materials Chemistry C, 2018, 6, 9537-9544.	5.5	8
84	Ultra-Low-Power Current Sensor Utilizing Magnetoelectric Nanowires. IEEE Sensors Journal, 2020, 20, 5139-5145.	4.7	8
85	Surface characterization of SLActive dental implants. The European Journal of Esthetic Dentistry: Official Journal of the European Academy of Esthetic Dentistry, 2012, 7, 72-92.	0.3	8
86	Large single crystals of LnBaCo2O5.5: Initial nucleation, growth and study. Journal of Crystal Growth, 2008, 310, 1867-1874.	1.5	7
87	Adsorption and Photocatalytic Degradation of 3-Fluoroaniline on Anatase TiO₂(101): A Photoemission and Near-Edge X-ray Absorption Fine Structure Study. Journal of Physical Chemistry C, 2014, 118, 2028-2036.	3.1	7
88	Interaction of a tripeptide with titania surfaces: RGD adsorption on rutile TiO2(110) and model dental implant surfaces. Materials Science and Engineering C, 2019, 105, 110030.	7.3	7
89	Ultrafast and Scalable Laserâ€Induced Crystallization of Titanium Dioxide Films for Planar Perovskite Solar Cells. Solar Rrl, 2021, 5, 2000562.	5.8	7
90	Synthesis and analysis of ZnOâ€CoMoO 4 incorporated organic compounds for efficient degradation of azo dye pollutants under dark ambient conditions. Applied Organometallic Chemistry, 2020, 34, e5733.	3.5	6

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91	Sustainable hydrothermal synthesis of cobaltâ€nickel nanomaterial for supercapacitor using green stabilizing agents. International Journal of Energy Research, 2022, 46, 4599-4608.	4.5	6
92	Soft X-ray photon stimulated ion desorption from SrTiO3(100)-H2O. Surface Science, 1994, 307-309, 355-359.	1.9	5
93	Electronic structure and reactivity of La1â^'xSrxCo1â^'yCuyO3 and La2â^'xSrxCo1â^'yCuyO4. Journal of Electron Spectroscopy and Related Phenomena, 1999, 101-103, 765-769.	1.7	5
94	Facile synthesis of ZnOâ€“CoMoO4 nanocomposite using bio-organic fuel for energy storage application. Journal of Materials Science: Materials in Electronics, 2021, 32, 8460-8474.	2.2	5
95	Preparation of Organo-Stabilized Mn3O4 Nanostructures as an Electro-Catalyst for Clean Energy Generation. Journal of Electronic Materials, 2021, 50, 5150-5160.	2.2	5
96	High efficiency semitransparent perovskite solar cells containing 2D nanopore arrays deposited in a single step. Journal of Materials Chemistry A, 2022, 10, 10227-10241.	10.3	5
97	Observation of UV-induced Auger features in catechol adsorbed on anatase TiO2 (101) single crystal surface. Applied Physics Letters, 2012, 100, 171603.	3.3	4
98	Reversible Reaction of CO₂ with Superbasic Ionic Liquid [P₆₆₆₁₄][benzim] Studied with in Situ Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 7134-7141.	3.1	4
99	Angle-resolved photoemission of CuO (100). Surface Science, 1997, 377-379, 256-260.	1.9	3
100	A photoemission study to confirm the second order nature of anomalous O 2s resonant enhancement of Bi2Sr2CaCu2O8(001) fermi level states. Physica C: Superconductivity and Its Applications, 1991, 185-189, 1047-1048.	1.2	2
101	ELECTRONIC STRUCTURE AND REACTIVITY OF TM-DOPED La1-xSrxCoO3 (TM = Ni, Fe) CATALYSTS. Surface Review and Letters, 2002, 09, 277-283.	1.1	2
102	Evaluation of electrochemical properties of organic template assisted PdO incorporated NiO for H2/O2 evolution. Microchemical Journal, 2020, 158, 105282.	4.5	2
103	Phytogenic synthesis and enhanced photocatalytic properties of ZnOCo3O4 pâ€“n junction: biomimetic water remediators. Ionics, 2022, 28, 1999.	2.4	2
104	Improving the Efficiency, Stability, and Adhesion of Perovskite Solar Cells Using Nanogel Additive Engineering. ACS Applied Materials & Interfaces, 2021, 13, 58640-58651.	8.0	2
105	Angle-resolved photoemission of Y-doped Bi2Sr2CaCu2O8+Î´. Surface Science, 1996, 352-354, 788-792.	1.9	1
106	Resonant photoemission of transition metal perovskites. Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 777-782.	1.7	1
107	Synthesis of facile ZnO : NiOâ€PdOâ€Pd nanomaterial by organic fuel: Environmentally benign electrode material for energy storage. International Journal of Energy Research, 2021, 45, 16284-16293.	4.5	1
108	4-Mercaptobenzoic Acid Adsorption on TiO2 Anatase (101) and TiO2 Rutile (110) Surfaces. Surfaces, 2022, 5, 238-250.	2.3	1

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109	Orientation of o-nitrophenol adsorbed on LaCoO3(111). Surface Science, 2000, 454-456, 131-136.	1.9	0
110	Fundamental Interactions at Oxide Surfaces: Understanding Novel Dye-sensitised Solar Cells. , 2009, , .		0
111	Comparison of the electronic structure of LnBaCo2O5+Î´ (Ln=Gd, Dy; Ln-112) and LnBaCo4O7 (Ln=Yb;) Tj ETQq1 1 0.784314 rgBT /Ove Related Phenomena, 2011, 184, 227-231.	1.7	0
112	Formation and Characterization of Model Iron Sulfide Scales with Disulfides and Thiols on Steel Pipeline Materials by an Aerosol-Assisted Chemical Vapor Method. Energy & Fuels, 2017, 31, 2496-2500.	5.1	0
113	Preliminary study of hydroxyapatite particles air abrasive blasting on Mg-4Zn-0.3Ca surface. AIP Conference Proceedings, 2019, , .	0.4	0
114	Introducing X-ray photoelectron spectroscopy for corrosion studies: A tool for elucidating interfacial composition and chemistry. , 2022, , 723-745.		0