David M Tobaldi

List of Publications by Year
in descending order

111 papers	4,031 citations	94269 37 h-index	143772 57 g-index
133 all docs	133 docs citations	133 times ranked	5450 citing authors

#	Article	IF	Citations
1	Biomass fly ash geopolymer monoliths for effective methylene blue removal from wastewaters. Journal of Cleaner Production, 2018, 171, 783-794.	4.6	190
2	Energy modelling studies of thermochromic glazing. Energy and Buildings, 2010, 42, 1666-1673.	3.1	175
3	Oxygen vacancies, the optical band gap (Eg) and photocatalysis of hydroxyapatite: Comparing modelling with measured data. Applied Catalysis B: Environmental, 2016, 196, 100-107.	10.8	146
4	Synthesis of porous biomass fly ash-based geopolymer spheres for efficient removal of methylene blue from wastewaters. Journal of Cleaner Production, 2019, 207, 350-362.	4.6	140
5	Sol gel graphene/TiO2 nanoparticles for the photocatalytic-assisted sensing and abatement of NO2. Applied Catalysis B: Environmental, 2019, 243, 183-194.	10.8	131
6	Effects of SiO2 addition on TiO2 crystal structure and photocatalytic activity. Journal of the European Ceramic Society, 2010, 30, 2481-2490.	2.8	97
7	Pt-decorated In2O3 nanoparticles and their ability as a highly sensitive (<10 ppb) acetone sensor for biomedical applications. Sensors and Actuators B: Chemical, 2016, 230, 697-705.	4.0	97
8	Dielectrical Properties of CeO2 Nanoparticles at Different Temperatures. PLoS ONE, 2015, 10, e0122989.	1.1	91
9	Graphene-TiO2 hybrids for photocatalytic aided removal of VOCs and nitrogen oxides from outdoor environment. Chemical Engineering Journal, 2021, 405, 126651.	6.6	90
10	Engineering highly effective and stable nanocomposite photocatalyst based on NH2-MIL-125 encirclement with Ag3PO4 nanoparticles. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 351, 50-58.	2.0	88
11	One-Step Synthesis, Structure, and Band Gap Properties of SnO₂ Nanoparticles Made by a Low Temperature Nonaqueous Solâ€“Gel Technique. ACS Omega, 2018, 3, 13227-13238.	1.6	83
12	Silver-Modified Nano-titania as an Antibacterial Agent and Photocatalyst. Journal of Physical Chemistry C, 2014, 118, 4751-4766.	1.5	81
13	Bacteria immobilisation on hydroxyapatite surface for heavy metals removal. Journal of Environmental Management, 2013, 121, 87-95.	3.8	77
14	Solâ€“gel synthesis, characterisation and photocatalytic activity of pure, W-, Ag- and W/Ag co-doped TiO2 nanopowders. Chemical Engineering Journal, 2013, 214, 364-375.	6.6	73
15	Formulation of mortars with nano-SiO2 and nano-TiO2 for degradation of pollutants in buildings. Composites Part B: Engineering, 2013, 44, 40-47.	5.9	69
16	Fully quantitative X-ray characterisation of Evonik Aeroxide TiO2 P25Â®. Materials Letters, 2014, 122, 345-347.	1.3	66
17	Pseudobrookite ceramic pigments: Crystal structural, optical and technological properties. Solid State Sciences, 2007, 9, 362-369.	1.5	65
18	Synthesis of PPy-ZnO composite used as photocatalyst for the degradation of diclofenac under simulated solar irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 375, 261-269.	2.0	65

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19	Effect of Fe-doping on the structure and magnetoelectric properties of (Ba_{0.85}Ca_{0.15})(Ti_{0.9}Zr_{0.1})O₃ synthesized by a chemical route. Journal of Materials Chemistry C, 2016, 4, 1066-1079.	2.7	60
20	Visible light activated photocatalytic behaviour of rare earth modified commercial TiO2. Materials Research Bulletin, 2014, 50, 183-190.	2.7	59
21	Calcium phosphate-based materials of natural origin showing photocatalytic activity. Journal of Materials Chemistry A, 2013, 1, 6452.	5.2	57
22	Crystal structure, optical properties and colouring performance of karrooite MgTi2O5 ceramic pigments. Journal of Solid State Chemistry, 2007, 180, 3196-3210.	1.4	56
23	Phase composition, crystal structure and microstructure of silver and tungsten doped TiO2 nanopowders with tuneable photochromic behaviour. Acta Materialia, 2013, 61, 5571-5585.	3.8	53
24	A hydroxyapatiteâ€“Fe₂O₃ based material of natural origin as an active sunscreen filter. Journal of Materials Chemistry B, 2014, 2, 5999-6009.	2.9	50
25	Light induced antibacterial activity and photocatalytic properties of Ag/Ag3PO4 -based material of marine origin. Journal of Photochemistry and Photobiology A: Chemistry, 2015, 296, 40-47.	2.0	50
26	Effect of surfactants on the optical and magnetic properties of cobalt-zinc ferrite Co0.5Zn0.5Fe2O4. Journal of Alloys and Compounds, 2019, 774, 1250-1259.	2.8	48
27	Photocatalytic activity for exposed building materials. Journal of the European Ceramic Society, 2008, 28, 2645-2652.	2.8	47
28	Titanium dioxide modified with transition metals and rare earth elements: Phase composition, optical properties, and photocatalytic activity. Ceramics International, 2013, 39, 2619-2629.	2.3	47
29	Synthesis of ceramic pigments from industrial wastes: Red mud and electroplating sludge. Waste Management, 2018, 80, 371-378.	3.7	46
30	Nano-titania doped with europium and neodymium showing simultaneous photoluminescent and photocatalytic behaviour. Journal of Materials Chemistry C, 2015, 3, 4970-4986.	2.7	45
31	Sensing properties and photochromism of Agâ€“TiO₂nano-heterostructures. Journal of Materials Chemistry A, 2016, 4, 9600-9613.	5.2	45
32	Effective removal of anionic and cationic dyes by kaolinite and TiO₂/kaolinite composites. Clay Minerals, 2016, 51, 19-27.	0.2	44
33	Mix design and mechanical performance of geopolymeric binders and mortars using biomass fly ash and alkaline effluent from paper-pulp industry. Journal of Cleaner Production, 2019, 208, 1188-1197.	4.6	44
34	The influence of TiO2 and ZnO powder mixtures on photocatalytic activity and rheological behavior of cement pastes. Construction and Building Materials, 2014, 65, 191-200.	3.2	43
35	Alkali Niobate and Tantalate Perovskites as Alternative Photocatalysts. ChemPhysChem, 2016, 17, 3570-3575.	1.0	43
36	Modification of anatase using noble-metals (Au, Pt, Ag): Toward a nanoheterojunction exhibiting simultaneously photocatalytic activity and plasmonic gas sensing. Applied Catalysis B: Environmental, 2017, 218, 370-384.	10.8	43

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37	Quantitative XRD characterisation and gas-phase photocatalytic activity testing for visible-light (indoor applications) of KRONOClean 7000Â®. RSC Advances, 2015, 5, 102911-102918.	1.7	40
38	Effect of samarium and vanadium co-doping on structure, ferroelectric and photocatalytic properties of bismuth titanate. RSC Advances, 2017, 7, 9680-9692.	1.7	39
39	Purely Visible-Light-Induced Photochromism in Agâ€“TiO₂ Nanoheterostructures. Langmuir, 2017, 33, 4890-4902.	1.6	38
40	Cuâ€“TiO₂ Hybrid Nanoparticles Exhibiting Tunable Photochromic Behavior. Journal of Physical Chemistry C, 2015, 119, 23658-23668.	1.5	37
41	Red mud as a substitute coloring agent for the hematite pigment. Ceramics International, 2018, 44, 4211-4219.	2.3	37
42	Hydroxyapatite and chloroapatite derived from sardine by-products. Ceramics International, 2014, 40, 13231-13240.	2.3	36
43	Fabricating and characterising ZnOâ€“ZnSâ€“Ag₂S ternary nanostructures with efficient solar-light photocatalytic activity. Physical Chemistry Chemical Physics, 2014, 16, 22418-22425.	1.3	35
44	Hydrothermal Synthesis of Rare-Earth Modified Titania: Influence on Phase Composition, Optical Properties, and Photocatalytic Activity. Materials, 2019, 12, 713.	1.3	35
45	Functionalised exposed building materials: Self-cleaning, photocatalytic and biofouling abilities. Ceramics International, 2017, 43, 10316-10325.	2.3	34
46	Polypyrrole-TiO2 composite for removal of 4-chlorophenol and diclofenac. Reactive and Functional Polymers, 2020, 146, 104401.	2.0	33
47	Films of chitosan and natural modified hydroxyapatite as effective UV-protecting, biocompatible and antibacterial wound dressings. International Journal of Biological Macromolecules, 2020, 159, 1177-1185.	3.6	32
48	Natural Portuguese clayey materials and derived TiO2-containing composites used for decolouring methylene blue (MB) and orange II (OII) solutions. Applied Clay Science, 2013, 83-84, 91-98.	2.6	30
49	Effect of preparation and processing conditions on UV absorbing properties of hydroxyapatite-Fe2O3 sunscreen. Materials Science and Engineering C, 2017, 71, 141-149.	3.8	30
50	Pyrolysed cork-geopolymer composites: A novel and sustainable EMI shielding building material. Construction and Building Materials, 2019, 229, 116930.	3.2	28
51	Effects of Cu, Zn and Cu-Zn addition on the microstructure and antibacterial and photocatalytic functional properties of Cu-Zn modified TiO 2 nano-heterostructures. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 330, 44-54.	2.0	27
52	Coffee biowaste valorization within circular economy: an evaluation method of spent coffee grounds potentials for mortar production. International Journal of Life Cycle Assessment, 2021, 26, 1805-1815.	2.2	27
53	Influence of sol counter-ions on the visible light induced photocatalytic behaviour of TiO₂ nanoparticles. Catalysis Science and Technology, 2014, 4, 2134-2146.	2.1	26
54	Novel biomass fly ash-based geopolymeric mortars using lime slaker grits as aggregate for applications in construction: Influence of granulometry and binder/aggregate ratio. Construction and Building Materials, 2019, 227, 116643.	3.2	26

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55	Impact of the absolute rutile fraction on TiO2 visible-light absorption and visible-light-promoted photocatalytic activity. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 382, 111940.	2.0	26
56	Synergy of Neodymium and Copper for Fast and Reversible Visible-light Promoted Photochromism, and Photocatalysis, in Cu/Nd-TiO₂ Nanoparticles. ACS Applied Energy Materials, 2019, 2, 3237-3252.	2.5	25
57	Synergistic effects of zirconium- and aluminum co-doping on the thermoelectric performance of zinc oxide. Journal of the European Ceramic Society, 2019, 39, 1222-1229.	2.8	25
58	Evaluation of reactive Si and Al amounts in various geopolymer precursors by a simple method. Journal of Building Engineering, 2019, 22, 48-55.	1.6	25
59	Photo-electrochemical properties of CuOâ€“TiO₂ heterojunctions for glucose sensing. Journal of Materials Chemistry C, 2020, 8, 9529-9539.	2.7	25
60	Study of far infrared optical properties and, photocatalytic activity of ZnO/ZnS hetero-nanocomposite structure. RSC Advances, 2014, 4, 35383.	1.7	24
61	Silver-containing calcium phosphate materials of marine origin with antibacterial activity. Ceramics International, 2015, 41, 10152-10159.	2.3	24
62	A sustainable replacement for TiO2 in photocatalyst construction materials: Hydroxyapatite-based photocatalytic additives, made from the valorisation of food wastes of marine origin. Journal of Cleaner Production, 2018, 193, 115-127.	4.6	22
63	The influence of TiO2 nanoparticles and poliacrilonitrile fibers on the rheological behavior and hardened properties of mortars. Construction and Building Materials, 2015, 75, 315-330.	3.2	21
64	Novel nanosynthesis of In₂O₃ and its application as a resistive gas sensor for sevoflurane anesthetic. Journal of Materials Chemistry B, 2015, 3, 399-407.	2.9	21
65	Carbon-modified titanium oxide materials for photocatalytic water and air decontamination. Chemical Engineering Journal, 2020, 387, 124099.	6.6	20
66	High dielectric constant and capacitance in ultrasmall (2.5 nm) SrHfO₃ perovskite nanoparticles produced in a low temperature non-aqueous solâ€“gel route. RSC Advances, 2016, 6, 51493-51502.	1.7	19
67	Luminescent calcium phosphate bioceramics doped with europium derived from fish industry byproducts. Journal of the American Ceramic Society, 2017, 100, 3402-3414.	1.9	19
68	Bioactivity and antibacterial activity against E-coli of calcium-phosphate-based glasses: Effect of silver content and crystallinity. Ceramics International, 2017, 43, 13800-13809.	2.3	19
69	Selection of Novel Geopolymeric Mortars for Sustainable Construction Applications Using Fuzzy Topsis Approach. Sustainability, 2020, 12, 5987.	1.6	19
70	Non-aqueous solâ€“gel synthesis through a low-temperature solvothermal process of anatase showing visible-light photocatalytic activity. RSC Advances, 2014, 4, 46762-46770.	1.7	18
71	Nitrogen-modified nano-titania: True phase composition, microstructure and visible-light induced photocatalytic NO abatement. Journal of Solid State Chemistry, 2015, 231, 87-100.	1.4	18
72	Unexplored alternative use of calcareous sludge from the paper-pulp industry in green geopolymer construction materials. Construction and Building Materials, 2020, 246, 118457.	3.2	18

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73	Photocatalytic nano-composite architectural lime mortar for degradation of urban pollutants under solar and visible (interior) light. Construction and Building Materials, 2017, 152, 206-213.	3.2	17
74	Nanocrystalline ZnOâ€“SnO2 mixed metal oxide powder: microstructural study, optical properties, and photocatalytic activity. Journal of Sol-Gel Science and Technology, 2017, 84, 274-282.	1.1	16
75	From lab to industry: Scaling up green geopolymeric mortars manufacturing towards circular economy. Journal of Cleaner Production, 2021, 316, 128164.	4.6	16
76	TiO2 deposition on the surface of activated fluoropolymer substrate. Thin Solid Films, 2012, 520, 2824-2828.	0.8	15
77	Innovative Recycling of Lime Slaker Grits from Paper-Pulp Industry Reused as Aggregate in Ambient Cured Biomass Fly Ash-Based Geopolymers for Sustainable Construction Material. Sustainability, 2019, 11, 3481.	1.6	15
78	Hybrid Noble-Metals/Metal-Oxide Bifunctional Nano-Heterostructure Displaying Outperforming Gas-Sensing and Photochromic Performances. ACS Omega, 2018, 3, 9846-9859.	1.6	14
79	Nanosized titania modified with tungsten and silver: Microstructural characterisation of a multifunctional material. Applied Surface Science, 2013, 287, 276-281.	3.1	13
80	Truncated tetragonal bipyramidal anatase nanocrystals formed without use of capping agents from the supercritical drying of a TiO₂sol. CrystEngComm, 2016, 18, 164-176.	1.3	13
81	Photocatalytic removal of benzene over Ti₃C₂T_x MXene and TiO₂â€“MXene composite materials under solar and NIR irradiation. Journal of Materials Chemistry C, 2022, 10, 626-639.	2.7	13
82	Mineralogical and Optical Characterization of SiO₂â€, Nâ€, and SiO₂/Nâ€Coâ€Doped Titania Nanopowders. Journal of the American Ceramic Society, 2012, 95, 1709-1716.	1.9	12
83	Smallest Bimetallic CoPt₃ Superparamagnetic Nanoparticles. Journal of Physical Chemistry Letters, 2016, 7, 4039-4046.	2.1	12
84	Influence of sol counter-ions on the anatase-to-rutile phase transformation and microstructure of nanocrystalline TiO₂. CrystEngComm, 2015, 17, 1813-1825.	1.3	11
85	Mix design and mechanical performance of geopolymer binder for sustainable construction and building material. IOP Conference Series: Materials Science and Engineering, 2017, 264, 012002.	0.3	11
86	Red mud and electroplating sludge as coloring agents of distinct glazes: The influence of heat treatment. Materials Letters, 2018, 223, 166-169.	1.3	11
87	Cu O and carbonâ€“modified TiO2â€“based hybrid materials for photocatalytically assisted H2 generation. Materials Today Energy, 2021, 19, 100607.	2.5	11
88	UV / visible sol gel Wâ€“TiO2 photocatalytic coatings for interior building surfaces. Building and Environment, 2021, 205, 108203.	3.0	10
89	Exploring Tantalum as a Potential Dopant to Promote the Thermoelectric Performance of Zinc Oxide. Materials, 2019, 12, 2057.	1.3	9
90	Synthesis, structure and magnetic properties of multipod-shaped cobalt ferrite nanocrystals. New Journal of Chemistry, 2019, 43, 10259-10269.	1.4	9

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91	Increased UV absorption properties of natural hydroxyapatiteâ€based sunscreen through laser ablation modification in liquid. Journal of the American Ceramic Society, 2019, 102, 3163-3174.	1.9	9
92	Processing mediated enhancement of ferroelectric and electrocaloric properties in Ba(Ti0.8Zr0.2)O3â€“(Ba0.7Ca0.3)TiO3 lead-free piezoelectrics. Journal of the European Ceramic Society, 2021, 41, 6424-6440.	2.8	9
93	Cork-derived hierarchically porous hydroxyapatite with different stoichiometries for biomedical and environmental applications. Materials Chemistry Frontiers, 0, , .	3.2	9
94	Architectural technologies for life environment: Spent coffee ground reuse in lime-based mortars. A preliminary assessment for innovative green thermo-plasters. Construction and Building Materials, 2022, 319, 126079.	3.2	9
95	Synthesis of Coâ€“TiO2 nanostructured photocatalytic coatings for MDF substrates. Green Materials, 2016, 4, 140-149.	1.1	8
96	Pseudocapacitive behaviour in sol-gel derived electrochromic titania nanostructures. Nanotechnology, 2021, 32, 045703.	1.3	8
97	Waste-Based Pigments for Application in Ceramic Glazes and Stoneware Bodies. Materials, 2019, 12, 3396.	1.3	7
98	Cooperative and fully reversible color switching activation in hybrid graphene decorated nanocages and copper-TiO2 nanoparticles. Materials Today Energy, 2020, 17, 100460.	2.5	7
99	Solid-Gas Phase Photo-Catalytic Behaviour of Rutile and TiOn (1 < n < 2) Sub-Oxide Phases for Self-Cleaning Applications. Materials, 2019, 12, 170.	1.3	6
100	On the high-temperature degradation mechanism of ZnO-based thermoelectrics. Journal of the European Ceramic Society, 2021, 41, 1730-1734.	2.8	6
101	A combined structural, microstructural and dilatometric analysis of MgPSZ. Journal of the European Ceramic Society, 2018, 38, 1769-1777.	2.8	5
102	Effect of Activating Solution Modulus on the Synthesis of Sustainable Geopolymer Binders Using Spent Oil Bleaching Earths as Precursor. Sustainability, 2021, 13, 7501.	1.6	5
103	Experimental and Computational Analysis of NOx Photocatalytic Abatement Using Carbon-Modified TiO2 Materials. Catalysts, 2020, 10, 1366.	1.6	4
104	Development of a Commercial Screed Mortar with Low OPC Content by Incorporation of Biomass Fly Ash. Applied Sciences (Switzerland), 2021, 11, 9630.	1.3	4
105	Surface modified hydroxyapatites with various functionalized nanostructures: Computational studies of the vacancies in HAp. Ferroelectrics, 2017, 509, 105-112.	0.3	3
106	Photocatalytic Lime Render for Indoor and Outdoor Air Quality Improvement. Catalysts, 2021, 11, 296.	1.6	3
107	Alkali-activated Fly Ash-based Mortars for Green Applications in Architecture and Civil Engineering. International Journal of Structural and Civil Engineering Research, 2019, , 1-9.	0.1	3
108	Benzene and NO photocatalytic-assisted removal using indoor lighting conditions. Materials Today Energy, 2022, 25, 100974.	2.5	3

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109	Low-Temperature and Ammonia-Free Epitaxy of the GaN/AlGaN/GaN Heterostructure. ACS Applied Electronic Materials, 2021, 3, 5451-5458.	2.0	3
110	High colouring efficiency, optical density and inserted charge in solâ€“gel derived electrochromic titania nanostructures. Energy Advances, 2022, 1, 321-330.	1.4	3
111	Photochemical Activation of Non-enzymatic Sensors Based on Cu/TiO2. Lecture Notes in Electrical Engineering, 2020, , 195-200.	0.3	0