

# Raul Quesada-Cabrera

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

2,246  
citations

218677

26  
h-index

214800

47  
g-index

60  
all docs

60  
docs citations

60  
times ranked

3839  
citing authors

#	ARTICLE	IF	CITATIONS
1	Intelligent Multifunctional VO <sub>2</sub> /SiO <sub>2</sub> /TiO <sub>2</sub> Coatings for Self-Cleaning, Energy-Saving Window Panels. Chemistry of Materials, 2016, 28, 1369-1376.	6.7	221
2	Photo-induced enhanced Raman spectroscopy for universal ultra-trace detection of explosives, pollutants and biomolecules. Nature Communications, 2016, 7, 12189.	12.8	201
3	Where Do Photogenerated Holes Go in Anatase:Rutile TiO <sub>2</sub> ? A Transient Absorption Spectroscopy Study of Charge Transfer and Lifetime. Journal of Physical Chemistry A, 2016, 120, 715-723.	2.5	128
4	Evidence and Effect of Photogenerated Charge Transfer for Enhanced Photocatalysis in WO <sub>3</sub> /TiO <sub>2</sub> Heterojunction Films: A Computational and Experimental Study. Advanced Functional Materials, 2017, 27, 1605413.	14.9	115
5	Multifunctional P-Doped TiO <sub>2</sub> Films: A New Approach to Self-Cleaning, Transparent Conducting Oxide Materials. Chemistry of Materials, 2015, 27, 3234-3242.	6.7	113
6	A simple, low-cost CVD route to thin films of BiFeO <sub>3</sub> for efficient water photo-oxidation. Journal of Materials Chemistry A, 2014, 2, 2922.	10.3	89
7	High-pressure x-ray scattering and computer simulation studies of density-induced polyamorphism in silicon. Physical Review B, 2007, 75, .	3.2	87
8	Scale Up Production of Nanoparticles: Continuous Supercritical Water Synthesis of Ceâ€Zn Oxides. Industrial & Engineering Chemistry Research, 2013, 52, 5522-5528.	3.7	86
9	Sensitive and specific detection of explosives in solution and vapour by surface-enhanced Raman spectroscopy on silver nanocubes. Nanoscale, 2017, 9, 16459-16466.	5.6	78
10	Pressure-induced phase transitions in L-alanine, revisited. Acta Crystallographica Section B: Structural Science, 2010, 66, 458-471.	1.8	73
11	Dynamics of Photoâ€Induced Surface Oxygen Vacancies in Metalâ€Oxide Semiconductors Studied Under Ambient Conditions. Advanced Science, 2019, 6, 1901841.	11.2	62
12	Nanomechanical and Structural Properties of Native Cellulose Under Compressive Stress. Biomacromolecules, 2011, 12, 2178-2183.	5.4	57
13	Action spectra of P25 TiO <sub>2</sub> and a visible light absorbing, carbon-modified titania in the photocatalytic degradation of stearic acid. Applied Catalysis B: Environmental, 2014, 150-151, 338-344.	20.2	56
14	Optimized Atmospheric-Pressure Chemical Vapor Deposition Thermochromic VO <sub>2</sub> Thin Films for Intelligent Window Applications. ACS Omega, 2017, 2, 1040-1046.	3.5	56
15	Low temperature/high pressure polymorphism in dl-cysteine. CrystEngComm, 2010, 12, 2551.	2.6	49
16	Critical influence of surface nitrogen species on the activity of N-doped TiO <sub>2</sub> thin-films during photodegradation of stearic acid under UV light irradiation. Applied Catalysis B: Environmental, 2014, 160-161, 582-588.	20.2	44
17	Photocatalytic Evidence of the Rutileâ€Anatase Electron Transfer in Titania. Advanced Materials Interfaces, 2014, 1, 1400069.	3.7	43
18	Tetrahedrally bonded dense $C_{28}$ a defective wurtzite structure: X-ray diffraction and Raman scattering results at high pressure and ambient conditions. Physical Review B, 2009, 80, .	3.2	38

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19	Study of the photocatalytic activity of Pt-modified commercial TiO <sub>2</sub> for hydrogen production in the presence of common organic sacrificial agents. <i>Applied Catalysis A: General</i> , 2016, 518, 189-197.	4.3	35
20	Photocatalytic activity of needle-like TiO <sub>2</sub> /WO <sub>3</sub> thin films prepared by chemical vapour deposition. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2012, 239, 60-64.	3.9	34
21	Photocatalytic and electrically conductive transparent Cl-doped ZnO thin films <i>via</i> aerosol-assisted chemical vapour deposition. <i>Journal of Materials Chemistry A</i> , 2018, 6, 12682-12692.	10.3	34
22	Polyamorphic Amorphous Silicon at High Pressure: Raman and Spatially Resolved X-ray Scattering and Molecular Dynamics Studies. <i>Journal of Physical Chemistry B</i> , 2011, 115, 14246-14255.	2.6	33
23	On the apparent visible-light and enhanced UV-light photocatalytic activity of nitrogen-doped TiO <sub>2</sub> thin films. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 333, 49-55.	3.9	29
24	High Defect Nanoscale ZnO Films with Polar Facets for Enhanced Photocatalytic Performance. <i>ACS Applied Nano Materials</i> , 2019, 2, 2881-2889.	5.0	29
25	The Effect of Photoinduced Surface Oxygen Vacancies on the Charge Carrier Dynamics in TiO <sub>2</sub> Films. <i>Nano Letters</i> , 2021, 21, 8348-8354.	9.1	29
26	A novel route to Pt-Bi <sub>2</sub> O <sub>3</sub> composite thin films and their application in photo-reduction of water. <i>Inorganica Chimica Acta</i> , 2012, 380, 328-335.	2.4	27
27	Particle size, morphology and phase transitions in hydrothermally produced VO <sub>2</sub> (D). <i>New Journal of Chemistry</i> , 2017, 41, 9216-9222.	2.8	26
28	Charge Transport Phenomena in Heterojunction Photocatalysts: The WO <sub>3</sub> /TiO <sub>2</sub> System as an Archetypical Model. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 9781-9793.	8.0	24
29	Qualitative XANES and XPS Analysis of Substrate Effects in VO <sub>2</sub> Thin Films: A Route to Improving Chemical Vapor Deposition Synthetic Methods?. <i>Journal of Physical Chemistry C</i> , 2017, 121, 20345-20352.	3.1	22
30	Probing the Role of Atomic Defects in Photocatalytic Systems through Photoinduced Enhanced Raman Scattering. <i>ACS Energy Letters</i> , 2021, 6, 4273-4281.	17.4	22
31	Nanoscale, conformal films of graphitic carbon nitride deposited at room temperature: a method for construction of heterojunction devices. <i>Nanoscale</i> , 2017, 9, 16586-16590.	5.6	20
32	Structural and Mechanical Properties of TTR105-115 Amyloid Fibrils from Compression Experiments. <i>Biophysical Journal</i> , 2011, 100, 193-197.	0.5	19
33	Exploring the thermochromism of sulfite-embedded polyoxometalate capsules. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 7295.	2.8	19
34	A simple and low-cost method for the preparation of self-supported TiO <sub>2</sub> /WO <sub>3</sub> ceramic heterojunction wafers. <i>Journal of Materials Chemistry A</i> , 2014, 2, 17602-17608.	10.3	19
35	Ultraviolet Radiation Induced Dopant Loss in a TiO <sub>2</sub> Photocatalyst. <i>ACS Catalysis</i> , 2017, 7, 1485-1490.	11.2	18
36	Functionalised gold and titania nanoparticles and surfaces for use as antimicrobial coatings. <i>Faraday Discussions</i> , 2014, 175, 273-287.	3.2	16

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37	Deeper Understanding of Interstitial Boron-Doped Anatase Thin Films as A Multifunctional Layer Through Theory and Experiment. <i>Journal of Physical Chemistry C</i> , 2018, 122, 714-726.	3.1	16
38	Spectroscopic studies of sulfite-based polyoxometalates at high temperature and high pressure. <i>Journal of Solid State Chemistry</i> , 2012, 186, 171-176.	2.9	15
39	Identification of new pillared-layered carbon nitride materials at high pressure. <i>Scientific Reports</i> , 2013, 3, 2122.	3.3	15
40	Direct and continuous hydrothermal flow synthesis of thermochromic phase pure monoclinic VO <sub>2</sub> nanoparticles. <i>Journal of Materials Chemistry C</i> , 2018, 6, 11731-11739.	5.5	15
41	Patterning of metal oxide thin films using a H <sub>2</sub> /He atmospheric pressure plasma jet. <i>Green Chemistry</i> , 2020, 22, 1406-1413.	9.0	15
42	Metastable phase transitions and structural transformations in solid-state materials at high pressure. <i>Phase Transitions</i> , 2007, 80, 1003-1032.	1.3	14
43	High-Throughput Continuous Hydrothermal Synthesis of Nanomaterials (Part II): Unveiling the As-Prepared Ce <sub>x</sub> Zr <sub>y</sub> Y <sub>z</sub> O <sub>2</sub> Phase Diagram. <i>ACS Combinatorial Science</i> , 2013, 15, 458-463.	3.8	14
44	Scalable Production of Thermochromic Nb-Doped VO <sub>2</sub> Nanomaterials Using Continuous Hydrothermal Flow Synthesis. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 10104-10111.	0.9	14
45	Pressure-induced structural transformations of the Zintl phase sodium silicide. <i>Journal of Solid State Chemistry</i> , 2009, 182, 2535-2542.	2.9	12
46	Compressibility of insulin amyloid fibrils determined by X-ray diffraction in a diamond anvil cell. <i>High Pressure Research</i> , 2009, 29, 665-670.	1.2	9
47	High-pressure synthesis and structural behavior of sodium orthonitrate Na <sub>3</sub> NO <sub>4</sub> . <i>Journal of Solid State Chemistry</i> , 2011, 184, 915-920.	2.9	9
48	High-Pressure Behavior and Polymorphism of Titanium Oxynitride Phase Ti <sub>2.85</sub> O <sub>4</sub> N. <i>Journal of Physical Chemistry C</i> , 2010, 114, 8546-8551.	3.1	8
49	In situ investigations of the polyoxometalate Trojan Horse compound K <sub>7</sub> Na[WVI <sub>18</sub> O <sub>56</sub> (SO <sub>3</sub> ) <sub>2</sub> (H <sub>2</sub> O) <sub>2</sub> ] <sub>20</sub> H <sub>2</sub> O under high temperature and high pressure conditions. <i>CrystEngComm</i> , 2010, 12, 2568.	2.6	7
50	Single-step synthesis of doped TiO <sub>2</sub> stratified thin-films by atmospheric-pressure chemical vapour deposition. <i>Journal of Materials Chemistry A</i> , 2014, 2, 7082.	10.3	7
51	High-throughput synthesis of core-shell and multi-shelled materials by fluidised bed chemical vapour deposition. Case study: double-shell rutile anatase particles. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17241-17247.	10.3	6
52	Qualitative Approaches Towards Useful Photocatalytic Materials. <i>Frontiers in Chemistry</i> , 2020, 8, 817.	3.6	5
53	Silicalite-1/glass fibre substrates for enhancing the photocatalytic activity of TiO <sub>2</sub> . <i>RSC Advances</i> , 2015, 5, 6970-6975.	3.6	3
54	Surface Oxygen Vacancies: Dynamics of Photoinduced Surface Oxygen Vacancies in Metal Oxide Semiconductors Studied Under Ambient Conditions ( <i>Adv. Sci.</i> 22/2019). <i>Advanced Science</i> , 2019, 6, 1970132.	11.2	3

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55	Facile formation of black titania films using an atmospheric-pressure plasma jet. <i>Green Chemistry</i> , 2022, 24, 2499-2505.	9.0	3
56	Photo-induced enhanced Raman spectroscopy (PIERS): sensing atomic-defects, explosives and biomolecules. , 2019, , .		2
57	Amorphous X-Ray Diffraction at High Pressure: Polyamorphic Silicon and Amyloid Fibrils. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , 2010, , 469-479.	0.3	1
58	Exploring the pressure-temperature behaviour of crystalline and plastic crystalline phases of N-isopropylpropionamide. <i>CrystEngComm</i> , 2015, 17, 2562-2568.	2.6	1
59	Photocatalysis: Evidence and Effect of Photogenerated Charge Transfer for Enhanced Photocatalysis in WO <sub>3</sub> /TiO <sub>2</sub> Heterojunction Films: A Computational and Experimental Study ( <i>Adv. Funct. Mater.</i> 18/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	14.9	1
60	Generating, probing and utilising photo-induced surface oxygen vacancies for trace molecular detection. , 2021, , .		0