

# Ana C Pimentel

## List of Publications by Year in descending order

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71  
papers

4,432  
citations

147786

31  
h-index

128286

60  
g-index

72  
all docs

72  
docs citations

72  
times ranked

4257  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fully Transparent ZnO Thin-Film Transistor Produced at Room Temperature. <i>Advanced Materials</i> , 2005, 17, 590-594.	21.0	787
2	Wide-bandgap high-mobility ZnO thin-film transistors produced at room temperature. <i>Applied Physics Letters</i> , 2004, 85, 2541-2543.	3.3	500
3	Recent advances in ZnO transparent thin film transistors. <i>Thin Solid Films</i> , 2005, 487, 205-211.	1.8	335
4	Metal oxide nanostructures for sensor applications. <i>Semiconductor Science and Technology</i> , 2019, 34, 043001.	2.0	201
5	Influence of the semiconductor thickness on the electrical properties of transparent TFTs based on indium zinc oxide. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1749-1752.	3.1	196
6	Amorphous IZO TTFTs with saturation mobilities exceeding 100 cm <sup>2</sup> /Vs. <i>Physica Status Solidi - Rapid Research Letters</i> , 2007, 1, R34-R36.	2.4	171
7	Highly stable transparent and conducting gallium-doped zinc oxide thin films for photovoltaic applications. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 1605-1610.	6.2	151
8	Zinc oxide, a multifunctional material: from material to device applications. <i>Applied Physics A: Materials Science and Processing</i> , 2009, 96, 197-205.	2.3	149
9	High field-effect mobility zinc oxide thin film transistors produced at room temperature. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 806-809.	3.1	124
10	Synthesis of Long ZnO Nanorods under Microwave Irradiation or Conventional Heating. <i>Journal of Physical Chemistry C</i> , 2014, 118, 14629-14639.	3.1	120
11	Transport in high mobility amorphous wide band gap indium zinc oxide films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, R95-R97.	1.8	113
12	Effect of solvents on ZnO nanostructures synthesized by solvothermal method assisted by microwave radiation: a photocatalytic study. <i>Journal of Materials Science</i> , 2015, 50, 5777-5787.	3.7	105
13	Effect of UV and visible light radiation on the electrical performances of transparent TFTs based on amorphous indium zinc oxide. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1756-1760.	3.1	89
14	Role of hydrogen plasma on electrical and optical properties of ZGO, ITO and IZO transparent and conductive coatings. <i>Thin Solid Films</i> , 2006, 511-512, 295-298.	1.8	87
15	Electron transport and optical characteristics in amorphous indium zinc oxide films. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1471-1474.	3.1	83
16	Microwave Synthesized ZnO Nanorod Arrays for UV Sensors: A Seed Layer Annealing Temperature Study. <i>Materials</i> , 2016, 9, 299.	2.9	83
17	High mobility amorphous/nanocrystalline indium zinc oxide deposited at room temperature. <i>Thin Solid Films</i> , 2006, 502, 104-107.	1.8	71
18	Ultra-Fast Microwave Synthesis of ZnO Nanorods on Cellulose Substrates for UV Sensor Applications. <i>Materials</i> , 2017, 10, 1308.	2.9	65

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19	Photocatalytic TiO <sub>2</sub> Nanorod Spheres and Arrays Compatible with Flexible Applications. <i>Catalysts</i> , 2017, 7, 60.	3.5	58
20	Cellulose: A Contribution for the Zero eWaste Challenge. <i>Advanced Materials Technologies</i> , 2021, 6, .	5.8	56
21	Chitin-glucan complex production by <i>Komagataella pastoris</i> : Downstream optimization and product characterization. <i>Carbohydrate Polymers</i> , 2015, 130, 455-464.	10.2	55
22	Polycrystalline intrinsic zinc oxide to be used in transparent electronic devices. <i>Thin Solid Films</i> , 2005, 487, 212-215.	1.8	50
23	Direct growth of plasmonic nanorod forests on paper substrates for low-cost flexible 3D SERS platforms. <i>Flexible and Printed Electronics</i> , 2017, 2, 014001.	2.7	46
24	Biowaste-derived carbon black applied to polyaniline-based high-performance supercapacitor microelectrodes: Sustainable materials for renewable energy applications. <i>Electrochimica Acta</i> , 2019, 316, 202-218.	5.2	45
25	Metal Oxide-Based Photocatalytic Paper: A Green Alternative for Environmental Remediation. <i>Catalysts</i> , 2021, 11, 504.	3.5	43
26	High UV and Sunlight Photocatalytic Performance of Porous ZnO Nanostructures Synthesized by a Facile and Fast Microwave Hydrothermal Method. <i>Materials</i> , 2021, 14, 2385.	2.9	41
27	3D ZnO/Ag Surface-Enhanced Raman Scattering on Disposable and Flexible Cardboard Platforms. <i>Materials</i> , 2017, 10, 1351.	2.9	40
28	Cu <sub>2</sub> O polyhedral nanowires produced by microwave irradiation. <i>Journal of Materials Chemistry C</i> , 2014, 2, 6097.	5.5	39
29	Photocatalytic behavior of TiO <sub>2</sub> films synthesized by microwave irradiation. <i>Catalysis Today</i> , 2016, 278, 262-270.	4.4	37
30	Laser-induced electrodes towards low-cost flexible UV ZnO sensors. <i>Flexible and Printed Electronics</i> , 2018, 3, 044002.	2.7	37
31	UV and ozone influence on the conductivity of ZnO thin films. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1444-1447.	3.1	36
32	Synthesis, design, and morphology of metal oxide nanostructures. , 2019, , 21-57.		32
33	Influence of time, light and temperature on the electrical properties of zinc oxide TFTs. <i>Superlattices and Microstructures</i> , 2006, 39, 319-327.	3.1	29
34	Electron transport in single and multicomponent n-type oxide semiconductors. <i>Thin Solid Films</i> , 2008, 516, 1322-1325.	1.8	24
35	Enhanced UV Flexible Photodetectors and Photocatalysts Based on TiO <sub>2</sub> Nanoplatforms. <i>Topics in Catalysis</i> , 2018, 61, 1591-1606.	2.8	24
36	Hybrid (Ag)ZnO/Cs/PMMA nanocomposite thin films. <i>Journal of Alloys and Compounds</i> , 2019, 803, 922-933.	5.5	24

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37	Tailoring Upconversion and Morphology of Yb/Eu Doped Y <sub>2</sub> O <sub>3</sub> Nanostructures by Acid Composition Mediation. <i>Nanomaterials</i> , 2019, 9, 234.	4.1	24
38	One-step synthesis of ZnO decorated CNT buckypaper composites and their optical and electrical properties. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2015, 195, 38-44.	3.5	23
39	TiO <sub>2</sub> Nanostructured Films for Electrochromic Paper Based-Devices. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1200.	2.5	21
40	Exploring the potential of laser assisted flow deposition grown ZnO for photovoltaic applications. <i>Materials Chemistry and Physics</i> , 2016, 177, 322-329.	4.0	18
41	Paper-Based Nanoplatforms for Multifunctional Applications. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-16.	2.7	18
42	Charging effects and surface potential variations of Cu-based nanowires. <i>Thin Solid Films</i> , 2016, 601, 45-53.	1.8	14
43	Photocatalytic Activity of Laser-Processed ZnO Micro/Nanocrystals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800155.	1.8	14
44	ZnO nanostructures grown on ITO coated glass substrate by hybrid microwave-assisted hydrothermal method. <i>Optik</i> , 2020, 208, 164372.	2.9	14
45	Room Temperature Synthesis of Cu <sub>2</sub> O Nanospheres: Optical Properties and Thermal Behavior. <i>Microscopy and Microanalysis</i> , 2015, 21, 108-119.	0.4	13
46	Enhanced Fe-TiO <sub>2</sub> Solar Photocatalysts on Porous Platforms for Water Purification. <i>Nanomaterials</i> , 2022, 12, 1005.	4.1	13
47	Ultrafast Microwave Synthesis of WO <sub>3</sub> Nanostructured Films for Solar Photocatalysis. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100196.	2.4	12
48	Role of the thickness on the electrical and optical performances of undoped polycrystalline zinc oxide films used as UV detectors. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1448-1452.	3.1	11
49	Room temperature dc and ac electrical behaviour of undoped ZnO films under UV light. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005, 118, 135-140.	3.5	9
50	Photocatalytic Activity of TiO <sub>2</sub> Nanostructured Arrays Prepared by Microwave-Assisted Solvothermal Method. , , , .		8
51	Enhanced solar photocatalysis of TiO <sub>2</sub> nanoparticles and nanostructured thin films grown on paper. <i>Nano Express</i> , 2021, 2, 040002.	2.4	8
52	Effect of annealing on molybdenum doped indium oxide thin films RF sputtered at room temperature. <i>Vacuum</i> , 2008, 82, 1489-1494.	3.5	7
53	Cellulose-Based Solid Electrolyte Membranes Through Microwave Assisted Regeneration and Application in Electrochromic Displays. <i>Frontiers in Materials</i> , 2020, 7, .	2.4	7
54	Visible Photoluminescent Zinc Oxide Nanorods for Label-Free Nonenzymatic Glucose Detection. <i>ACS Applied Nano Materials</i> , 2022, 5, 4386-4396.	5.0	7

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55	Multifunctional Thin Film Zinc Oxide Semiconductors: Application to Electronic Devices. Materials Science Forum, 2006, 514-516, 3-7.	0.3	6
56	Away from silicon era: the paper electronics. Proceedings of SPIE, 2011, , .	0.8	6
57	Structural, optical, and electronic properties of metal oxide nanostructures. , 2019, , 59-102.		6
58	A Study on the Electrical Properties of ZnO Based Transparent TFTs. Materials Science Forum, 2006, 514-516, 68-72.	0.3	5
59	Next Generation of Thin Film Transistors Based on Zinc Oxide. Materials Research Society Symposia Proceedings, 2004, 811, 67.	0.1	3
60	Chromogenic applications. , 2019, , 103-147.		3
61	Optical Studies in Red/NIR Persistent Luminescent Cr-Doped Zinc Gallogermanate (ZGGO:Cr). Applied Sciences (Switzerland), 2022, 12, 2104.	2.5	3
62	Enhancement of the Electrical Properties of ITO Deposited on Polymeric Substrates by Using a ZnO Buffer Layer. Materials Research Society Symposia Proceedings, 2004, 814, 347.	0.1	2
63	Zinc Oxide Thin-Film Transistors. , 2005, , 225-238.		2
64	Study of Electrochromic Devices Incorporating a Polymer Gel Electrolyte Component. Materials Science Forum, 2006, 514-516, 83-87.	0.3	2
65	Role of Hydrogen Plasma on the Electrical and Optical Properties of Indium Zinc Transparent Conductive Oxide. Materials Science Forum, 2006, 514-516, 63-67.	0.3	1
66	Oxide nanoparticle hybrid materials and applications. , 2019, , 235-281.		1
67	Oxide materials for energy applications. , 2019, , 199-234.		1
68	High Mobility Nanocrystalline Indium Zinc Oxide Deposited at Room Temperature. Materials Research Society Symposia Proceedings, 2004, 811, 128.	0.1	0
69	Paper electronics: a sustainable multifunctional platform. , 2018, , .		0
70	Electronic applications of oxide nanostructures. , 2019, , 149-197.		0
71	Conclusions and future perspectives. , 2019, , 283-295.		0