

# Polona Umek

## List of Publications by Year in descending order

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72  
papers

2,050  
citations

257450

24  
h-index

254184

43  
g-index

75  
all docs

75  
docs citations

75  
times ranked

3099  
citing authors

#	ARTICLE	IF	CITATIONS
1	Flumequine-loaded titanate nanotubes as antibacterial agents for aquaculture farms. RSC Advances, 2022, 12, 5953-5963.	3.6	5
2	Synthesis and Characterization of Ag/ZnO Nanoparticles for Bacteria Disinfection in Water. Nanomaterials, 2022, 12, 1764.	4.1	19
3	Iron-Modified Titanate Nanorods for Oxidation of Aqueous Ammonia Using Combined Treatment with Ozone and Solar Light Irradiation. Catalysts, 2022, 12, 666.	3.5	3
4	CVD growth of self-assembled 2D and 1D WS <sub>2</sub> nanomaterials for the ultrasensitive detection of NO <sub>2</sub> . Sensors and Actuators B: Chemical, 2021, 326, 128813.	7.8	58
5	Single cell temperature probed by Eu <sup>+3</sup> doped TiO <sub>2</sub> nanoparticles luminescence. Nano Select, 2021, 2, 1208-1217.	3.7	3
6	Nd <sup>3+</sup> -Doped TiO <sub>2</sub> Nanoparticles as Nanothermometer: High Sensitivity in Temperature Evaluation inside Biological Windows. Sensors, 2021, 21, 5306.	3.8	3
7	Graphene Loading with Polypyrrole Nanoparticles for Trace-Level Detection of Ammonia at Room Temperature. ACS Applied Materials & Interfaces, 2021, 13, 40909-40921.	8.0	24
8	How to control fluorescent labeling of metal oxide nanoparticles for artefact-free live cell microscopy. Nanotoxicology, 2021, 15, 1102-1123.	3.0	2
9	Tungsten trioxide nanowires decorated with iridium oxide nanoparticles as gas sensing material. Journal of Alloys and Compounds, 2020, 812, 152156.	5.5	11
10	Effects of physicochemical properties of TiO <sub>2</sub> nanomaterials for pulmonary inflammation, acute phase response and alveolar proteinosis in intratracheally exposed mice. Toxicology and Applied Pharmacology, 2020, 386, 114830.	2.8	66
11	Photocatalytic self-cleaning properties of Mo:TiO <sub>2</sub> loaded Zn-Al layered double hydroxide synthesised at optimised pH value for the application on mineral substrates. Ceramics International, 2020, 46, 6756-6766.	4.8	7
12	Eu <sup>3+</sup> -doped titanium oxide nanoparticles for optical thermometry in the first biological window. Optical Materials, 2020, 101, 109770.	3.6	8
13	Bacteria Exposed to Silver Nanoparticles Synthesized by Laser Ablation in Water: Modelling E. coli Growth and Inactivation. Materials, 2020, 13, 653.	2.9	19
14	Photocatalytic biocidal effect of copper doped TiO <sub>2</sub> nanotube coated surfaces under laminar flow, illuminated with UVA light on Legionella pneumophila. PLoS ONE, 2020, 15, e0227574.	2.5	5
15	Disease Prediction: Prediction of Chronic Inflammation for Inhaled Particles: the Impact of Material Cycling and Quarantining in the Lung Epithelium (Adv. Mater. 47/2020). Advanced Materials, 2020, 32, .	21.0	0
16	WO <sub>3</sub> nanowires loaded with cobalt oxide nanoparticles, deposited by a two-step AACVD for gas sensing applications. Sensors and Actuators B: Chemical, 2019, 298, 126868.	7.8	26
17	Towards Stable and Conductive Titanium Oxynitride High-Surface Area Support for Iridium Nanoparticles as Oxygen Evolution Reaction Electrocatalyst. ChemCatChem, 2019, 11, 5038-5044.	3.7	29
18	Role of Water in the Transformation of Protonated Titanate Nanoribbons to Anatase Nanoribbons. Journal of Physical Chemistry C, 2019, 123, 23747-23757.	3.1	6

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19	Charge separation and ROS generation on tubular sodium titanates exposed to simulated solar light. Applied Surface Science, 2019, 470, 1053-1063.	6.1	13
20	Gas Sensing with Iridium Oxide Nanoparticle Decorated Carbon Nanotubes. Sensors, 2019, 19, 113.	3.8	20
21	AACVD and gas sensing properties of nickel oxide nanoparticle decorated tungsten oxide nanowires. Journal of Materials Chemistry C, 2018, 6, 5181-5192.	5.5	30
22	Parameters optimization for synthesis of Al-doped ZnO nanoparticles by laser ablation in water. Applied Surface Science, 2018, 440, 916-925.	6.1	56
23	Nanoscale NEXAFS for Probing TiCh-B Nanoribbons.. Microscopy and Microanalysis, 2018, 24, 474-475.	0.4	3
24	Surface deposited one-dimensional copper-doped TiO <sub>2</sub> nanomaterials for prevention of health care acquired infections. PLoS ONE, 2018, 13, e0201490.	2.5	10
25	Nanoparticles Can Wrap Epithelial Cell Membranes and Relocate Them Across the Epithelial Cell Layer. Nano Letters, 2018, 18, 5294-5305.	9.1	27
26	Photocatalytic disinfection of surfaces with copper doped TiO <sub>2</sub> nanotube coatings illuminated by ceiling mounted fluorescent light. PLoS ONE, 2018, 13, e0197308.	2.5	5
27	Protonated titanate nanotubes as solid acid catalyst for aldol condensation. Journal of Catalysis, 2017, 346, 161-169.	6.2	30
28	Synthesis of Al-doped ZnO nanoparticles by laser ablation of ZnO:Al <sub>2</sub> O <sub>3</sub> target in water. Materials Research Express, 2017, 4, 105003.	1.6	17
29	Chemical Bond Modification upon Phase Transformation of TiO <sub>2</sub> Nanoribbons Revealed by Nanoscale X-ray Linear Dichroism. Journal of Physical Chemistry C, 2017, 121, 17038-17042.	3.1	12
30	Structural properties and thermal stability of cobalt- and chromium-doped $\pm$ -MnO <sub>2</sub> nanorods. Beilstein Journal of Nanotechnology, 2017, 8, 1032-1042.	2.8	6
31	Synthesis of single crystalline In <sub>2</sub> O <sub>3</sub> octahedra for the selective detection of NO <sub>2</sub> and H <sub>2</sub> at trace levels. Journal of Materials Chemistry C, 2016, 4, 9418-9427.	5.5	53
32	Transformation of hydrogen titanate nanoribbons to TiO <sub>2</sub> nanoribbons and the influence of the transformation strategies on the photocatalytic performance. Beilstein Journal of Nanotechnology, 2015, 6, 831-844.	2.8	29
33	Aerosol-Assisted CVD-Grown WO <sub>3</sub> Nanoneedles Decorated with Copper Oxide Nanoparticles for the Selective and Humidity-Resilient Detection of H <sub>2</sub> S. ACS Applied Materials & Interfaces, 2015, 7, 6842-6851.	8.0	161
34	A study of thermal properties of sodium titanate nanotubes synthesized by microwave-assisted hydrothermal method. Materials Research Bulletin, 2015, 71, 98-105.	5.2	29
35	Individual Titanate Nanoribbons Studied by 3D-Resolved Polarization Dependent X-ray Absorption Spectra Measured with Scanning Transmission X-ray Microscopy. Journal of Physical Chemistry C, 2015, 119, 24192-24200.	3.1	10
36	Controlling Disorder and Superconductivity in Titanium Oxynitride Nanoribbons with Anion Exchange. ACS Nano, 2015, 9, 10133-10141.	14.6	20

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37	Protein Corona Prevents TiO <sub>2</sub> Phototoxicity. PLoS ONE, 2015, 10, e0129577.	2.5	35
38	Single-step co-deposition of nanostructured tungsten oxide supported gold nanoparticles using a gold-phosphine cluster complex as the gold precursor. Science and Technology of Advanced Materials, 2014, 15, 065004.	6.1	4
39	Microsensors based on Pt-nanoparticle functionalised tungsten oxide nanoneedles for monitoring hydrogen sulfide. RSC Advances, 2014, 4, 1489-1495.	3.6	30
40	Stabilisation of 2D colloidal assemblies by polymerisation of liquid crystalline matrices for photonic applications. Soft Matter, 2014, 10, 5797-5803.	2.7	14
41	Mn <sup>2+</sup> Substitutional Doping of TiO <sub>2</sub> Nanoribbons: A Three-Step Approach. Journal of Physical Chemistry C, 2014, 118, 21250-21257.	3.1	23
42	Sol-gel functionalization of sodium TiO <sub>2</sub> nanotubes and nanoribbons with aminosilane molecules. Ceramics International, 2013, 39, 9459-9464.	4.8	8
43	Sensitive and rapid hydrogen sensors based on Pd-WO <sub>3</sub> thick films with different morphologies. International Journal of Hydrogen Energy, 2013, 38, 2565-2577.	7.1	82
44	Single-Step Deposition of Au- and Pt-Nanoparticle-Functionalized Tungsten Oxide Nanoneedles Synthesized Via Aerosol-Assisted CVD, and Used for Fabrication of Selective Gas Microsensor Arrays. Advanced Functional Materials, 2013, 23, 1313-1322.	14.9	143
45	Functionalization of sodium titanate nanoribbons with silanes and their use in the reinforcement of epoxy nanocomposites. Polymer Composites, 2013, 34, 1382-1388.	4.6	6
46	Synthesis of silane functionalized sodium titanate nanotubes and their influence on thermal and mechanical properties of epoxy nanocomposite. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2284-2291.	1.8	9
47	Sensors: Single-Step Deposition of Au- and Pt-Nanoparticle-Functionalized Tungsten Oxide Nanoneedles Synthesized Via Aerosol-Assisted CVD, and Used for Fabrication of Selective Gas Microsensor Arrays (Adv. Funct. Mater. 10/2013). Advanced Functional Materials, 2013, 23, 1226-1226.	14.9	2
48	Effect of inorganic 1D nanoparticles on electrooptic properties of 5CB liquid crystal. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2328-2334.	1.8	14
49	SO <sub>2</sub> Gas Sensors based on WO <sub>3</sub> Nanostructures with Different Morphologies. Procedia Engineering, 2012, 47, 1033-1036.	1.2	37
50	Nanoscale spectroscopy with polarized X-rays by NEXAFS-TXM. Nature Photonics, 2012, 6, 25-29.	31.4	106
51	Hydrothermal Synthesis of Two Dimensional WO <sub>3</sub> Nanostructures for NO <sub>2</sub> Detection in the ppb-level. Procedia Engineering, 2012, 47, 228-231.	1.2	17
52	Towards atomic resolution in sodium titanate nanotubes using near-edge X-ray-absorption fine-structure spectromicroscopy combined with multichannel multiple-scattering calculations. Beilstein Journal of Nanotechnology, 2012, 3, 789-797.	2.8	22
53	Local Coordination and Valence States of Cobalt in Sodium Titanate Nanoribbons. Journal of Physical Chemistry C, 2012, 116, 11357-11363.	3.1	12
54	Gold clusters on WO <sub>3</sub> nanoneedles grown via AACVD: XPS and TEM studies. Materials Chemistry and Physics, 2012, 134, 809-813.	4.0	83

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55	The impact of K <sup>+</sup> content on the structural transformations and morphological changes during the thermal treatment of $\text{K}^{\pm}\text{-MnO}_2$ nanorods. <i>Materials Research Bulletin</i> , 2012, 47, 1523-1528.	5.2	8
56	Synthesis and Characterization of Sodium Titanate and $\text{TiO}_2$ Nanostructures Loaded with Silver Nanoparticles. , 2011, , .		2
57	The control of the diameter and length of $\text{K}^{\pm}\text{-MnO}_2$ nanorods by regulation of reaction parameters and their thermogravimetric properties. <i>Materials Research Bulletin</i> , 2011, 46, 278-284.	5.2	20
58	Synthesis and Cathodoluminescence of Undoped and $\text{Cr}^{3+}$ -Doped Sodium Titanate Nanotubes and Nanoribbons. <i>Journal of Physical Chemistry C</i> , 2010, 114, 8192-8198.	3.1	15
59	Structural and mechanical properties of polystyrene nanocomposites with 1D titanate nanostructures prepared by an extrusion process. <i>Polymer Composites</i> , 2009, 30, 1318-1325.	4.6	19
60	Interplay between nematic ordering and thermomechanical response in a side-chain liquid single crystal elastomer containing pendant azomesogen units. <i>Polymer</i> , 2009, 50, 4837-4844.	3.8	38
61	Synthesis of 3D Hierarchical Self-Assembled Microstructures Formed from $\text{K}^{\pm}\text{-MnO}_2$ Nanotubes and Their Conducting and Magnetic Properties. <i>Journal of Physical Chemistry C</i> , 2009, 113, 14798-14803.	3.1	67
62	Coordination of Intercalated $\text{Cu}^{2+}$ Sites in Copper Doped Sodium Titanate Nanotubes and Nanoribbons. <i>Journal of Physical Chemistry C</i> , 2008, 112, 15311-15319.	3.1	28
63	The Influence of the Reaction Temperature on the Morphology of Sodium Titanate 1D Nanostructures and Their Thermal Stability. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 3502-3508.	0.9	47
64	Synthesis and Characterization of $\text{Mo}_6\text{S}_4\text{I}_4.5$ Nanowires. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 982-985.	0.9	3
65	Fluctuation-induced tunneling in $\text{TiO}_2$ -derived nanotube pellets. <i>Journal of Applied Physics</i> , 2007, 101, 084308.	2.5	13
66	Synthesis, structure, and magnetic properties of iron-oxide nanowires. <i>Journal of Materials Research</i> , 2006, 21, 2955-2962.	2.6	18
67	The impact of ageing on the magnetic properties of $\text{Cu}(\text{OH})_2$ nanoribbons. <i>Nanotechnology</i> , 2005, 16, 1623-1629.	2.6	5
68	Impact of Structure and Morphology on Gas Adsorption of Titanate-Based Nanotubes and Nanoribbons. <i>Chemistry of Materials</i> , 2005, 17, 5945-5950.	6.7	74
69	Air-stable monodispersed $\text{Mo}_6\text{S}_3\text{I}_6$ nanowires. <i>Nanotechnology</i> , 2004, 15, 635-638.	2.6	112
70	Addition of Carbon Radicals Generated from Organic Peroxides to Single Wall Carbon Nanotubes. <i>Chemistry of Materials</i> , 2003, 15, 4751-4755.	6.7	104
71	Controlled Growth and Applications of Carbon Nanotubes. <i>Chimia</i> , 2002, 56, 547-552.	0.6	3
72	Non-linear resonance Raman cross-section in single-wall carbon nanotubes at low excitation laser powers. <i>AIP Conference Proceedings</i> , 2001, , .	0.4	0