Katarzyna Grochowska

List of Publications by Year
in descending order

51 papers	746 citations	516561 16 h-index	610775 24 g-index
53 all docs	53 docs citations	53 times ranked	673 citing authors

#	Article	IF	Citations
1	Electrochemical glucose sensor based on the glucose oxidase entrapped in chitosan immobilized onto laser-processed Au-Ti electrode. Sensors and Actuators B: Chemical, 2021, 330, 129409.	4.0	54
2	Non-enzymatic flexible glucose sensing platform based on nanostructured TiO2 â€“ Au composite. Journal of Electroanalytical Chemistry, 2019, 837, 230-239.	1.9	45
3	Thin layer of ordered boron-doped TiO2 nanotubes fabricated in a novel type of electrolyte and characterized by remarkably improved photoactivity. Applied Surface Science, 2015, 357, 942-950.	3.1	44
4	A facile method for Tauc exponent and corresponding electronic transitions determination in semiconductors directly from UVâ€“Vis spectroscopy data. Optical Materials, 2022, 127, 112205.	1.7	44
5	fs- and ns-laser processing of polydimethylsiloxane (PDMS) elastomer: Comparative study. Applied Surface Science, 2015, 336, 321-328.	3.1	43
6	Characterization of Ag nanostructures fabricated by laser-induced dewetting of thin films. Applied Surface Science, 2016, 374, 36-41.	3.1	29
7	Scalable Route toward Superior Photoresponse of UV-Laser-Treated TiO2 Nanotubes. ACS Applied Materials & Interfaces, 2020, 12, 3225-3235.	4.0	27
8	Laser-assisted modification of titanium dioxide nanotubes in a tilted mode as surface modification and patterning strategy. Applied Surface Science, 2020, 508, 145143.	3.1	24
9	Enzyme Immobilization on Gold Nanoparticles for Electrochemical Glucose Biosensors. Nanomaterials, 2021, 11, 1156.	1.9	24
10	The geometry of free-standing titania nanotubes as a critical factor controlling their optical and photoelectrochemical performance. Surface and Coatings Technology, 2020, 389, 125628.	2.2	22
11	Semi-transparent ordered TiO2 nanostructures prepared by anodization of titanium thin films deposited onto the FTO substrate. Applied Surface Science, 2016, 381, 36-41.	3.1	21
12	A Flexible Nafion Coated Enzymeâ€free Glucose Sensor Based on Auâ€dimpled Ti Structures. Electroanalysis, 2020, 32, 323-332.	1.5	21
13	Ordered titanium templates functionalized by gold films for biosensing applications â€“ Towards non-enzymatic glucose detection. Talanta, 2017, 166, 207-214.	2.9	20
14	The pulsed laser ablation synthesis of colloidal iron oxide nanoparticles for the enhancement of TiO2 nanotubes photo-activity. Applied Surface Science, 2020, 530, 147097.	3.1	20
15	Nanostructuring of thin Au films deposited on ordered Ti templates for applications in SERS. Applied Surface Science, 2017, 418, 472-480.	3.1	17
16	Engineering Au Nanoparticle Arrays on SiO2 Glass by Pulsed UV Laser Irradiation. Plasmonics, 2013, 8, 105-113.	1.8	16
17	Properties of ordered titanium templates covered with Au thin films for SERS applications. Applied Surface Science, 2016, 388, 716-722.	3.1	16
18	Interfacial Properties of Organic Semiconductorâ€“Inorganic Magnetic Oxide Hybrid Spintronic Systems Fabricated Using Pulsed Laser Deposition. ACS Applied Materials & Interfaces, 2015, 7, 22228-22237.	4.0	15

#	Article	IF	Citations
19	Functionalization of indium-tin-oxide electrodes by laser-nanostructured gold thin films for biosensing applications. Applied Surface Science, 2015, 357, 1684-1691.	3.1	14
20	Nanoporous TiO2 electrode grown by laser ablation of titanium in air at atmospheric pressure and room temperature. Thin Solid Films, 2016, 601, 41-44.	0.8	14
21	Novel approach to interference analysis of glucose sensing materials coated with Nafion. Bioelectrochemistry, 2020, 135, 107575.	2.4	14
22	The optimization of enzyme immobilization at Au-Ti nanotextured platform and its impact onto the response towards glucose in neutral media. Materials Research Express, 2019, 6, 1150e3.	0.8	13
23	Anodic titania nanotubes decorated with gold nanoparticles produced by laser-induced dewetting of thin metallic films. Scientific Reports, 2020, 10, 20506.	1.6	12
24	The In-Depth Studies of Pulsed UV Laser-Modified TiO2 Nanotubes: The Influence of Geometry, Crystallinity, and Processing Parameters. Nanomaterials, 2020, 10, 430.	1.9	12
25	Properties of plasmonic arrays produced by pulsed-laser nanostructuring of thin Au films. Beilstein Journal of Nanotechnology, 2014, 5, 2102-2112.	1.5	11
26	Thermally tuneable optical and electrochemical properties of Au-Cu nanomosaic formed over the host titanium dimples. Chemical Engineering Journal, 2020, 399, 125673.	6.6	10
27	Laser-assisted approach for improved performance of Au-Ti based glucose sensing electrodes. Applied Surface Science, 2021, 543, 148788.	3.1	10
28	Exploring multi-step glucose oxidation kinetics at GOx-functionalized nanotextured gold surfaces with differential impedimetric technique. Measurement: Journal of the International Measurement Confederation, 2021, 174, 109015.	2.5	10
29	Laser induced formation of copper species over TiO2 nanotubes towards enhanced water splitting performance. International Journal of Hydrogen Energy, 2020, 45, 19192-19205.	3.8	9
30	Insightful Analysis of Phenomena Arising at the Metal|Polymer Interphase of Au-Ti Based Non-Enzymatic Glucose Sensitive Electrodes Covered by Nafion. Coatings, 2020, 10, 810.	1.2	9
31	Spin crossover and cooperativity in nanocrystalline [Fe(pyrazine)Pt(CN)4] thin films deposited by matrix-assisted laser evaporation. Applied Surface Science, 2021, 541, 148419.	3.1	9
32	Influence of Annealing Atmospheres on Photoelectrochemical Activity of TiO₂ Nanotubes Modified with AuCu Nanoparticles. ACS Applied Materials & Interfaces, 2021, 13, 52967-52977.	4.0	9
33	Spectacular Oxygen Evolution Reaction Enhancement through Laser Processing of the Nickelâ€Decorated Titania Nanotubes. Advanced Materials Interfaces, 2021, 8, .	1.9	8
34	Review on robust laser light interaction with titania â€“ Patterning, crystallisation and ablation processes. Progress in Solid State Chemistry, 2021, 62, 100297.	3.9	8
35	Free-standing TiO₂ nanotubes decorated with spherical nickel nanoparticles as a cost-efficient electrocatalyst for oxygen evolution reaction. RSC Advances, 2021, 11, 219-228.	1.7	8
36	Fabrication and Significant Photoelectrochemical Activity of Titania Nanotubes Modified with Thin Indium Tin Oxide Film. Acta Metallurgica Sinica (English Letters), 2017, 30, 1210-1220.	1.5	7

#	Article	IF	Citations
37	Nanostructuring of thin Au films by means of short UV laser pulses. Opto-electronics Review, 2011, 19, .	2.4	6
38	Properties of an Indium Tin Oxide Electrode Modified by a Laser Nanostructured Thin Au Film for Biosensing. European Journal of Inorganic Chemistry, 2015, 2015, 1275-1281.	1.0	6
39	Formation of the hollow nanopillar arrays through the laser-induced transformation of TiO2 nanotubes. Scientific Reports, 2020, 10, 20235.	1.6	6
40	Rapid development of the photoresponse and oxygen evolution of TiO2 nanotubes sputtered with Cr thin films realized via laser annealing. Journal of Alloys and Compounds, 2021, 877, 160316.	2.8	6
41	The interaction of the pulsed laser irradiation with titania nanotubes - Theoretical studies on the thermal effect. International Journal of Thermal Sciences, 2021, 162, 106800.	2.6	5
42	The Anodization of Thin Titania Layers as a Facile Process towards Semitransparent and Ordered Electrode Material. Nanomaterials, 2022, 12, 1131.	1.9	5
43	Properties of Thermally Dewetted Thin Au Films on ITO-Coated Glass for Biosensing Applications. Plasmonics, 2017, 12, 1939-1946.	1.8	4
44	Laser-Assisted Synthesis and Oxygen Generation of Nickel Nanoparticles. Materials, 2020, 13, 4068.	1.3	4
45	Light-improved glucose sensing on ordered Au-Ti heterostructure. Optik, 2020, 206, 164166.	1.4	3
46	Electrocatalytic oxidation of methanol, ethylene glycol and glycerine in alkaline media on TiO2 nanotubes decorated with AuCu nanoparticles for an application in fuel cells. Journal of Materials Science, 2022, 57, 13345-13361.	1.7	3
47	The Effect of Laser Re-Solidification on Microstructure and Photo-Electrochemical Properties of Fe-Decorated TiO2 Nanotubes. Materials, 2020, 13, 4019.	1.3	2
48	Simple synthesis route for fabrication of protective photoâ€crosslinked poly(zwitterionic) membranes for application in nonâ€enzymatic glucose sensing. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2021, , .	1.6	2
49	Pulsed laser deposition of plasmonic structures in air by irradiation through the substrate. Thin Solid Films, 2021, 734, 138836.	0.8	1
50	Nanostructure of the laser-modified transition metal nanocomposites for water splitting. Nanotechnology, 2022, , .	1.3	1
51	Optical properties of Au nanostructures obtained by pulsed UV laser irradiation of thin films. Photonics Letters of Poland, 2011, 3, .	0.2	0