

Husnu E Unalan

List of Publications by Year in Descending Order

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Version: 2024-04-20

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

122
papers

4,879
citations

39
h-index

66
g-index

125
ext. papers

5,538
ext. citations

5.8
avg, IF

5.94
L-index

#	Paper	IF	Citations
122	Scalable, microwave-assisted decoration of commercial cotton fabrics with binary nickel cobalt sulfides towards textile-based energy storage. <i>Electrochimica Acta</i> , 2022 , 404, 139731	6.7	1
121	Titanium disulfide decorated hollow carbon spheres towards capacitive deionization. <i>Desalination</i> , 2022 , 533, 115766	10.3	1
120	Silver nanowire loaded poly(ϵ -caprolactone) nanocomposite fibers as electroactive scaffolds for skeletal muscle regeneration.. <i>Materials Science and Engineering C</i> , 2021 , 112567	8.3	1
119	Multichromic Vanadium Pentoxide Thin Films Through Ultrasonic Spray Deposition. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 106511	3.9	1
118	Seamless Monolithic Design for Foam Based, Flexible, Parallel Plate Capacitive Sensors. <i>Advanced Materials Technologies</i> , 2021 , 6, 2001168	6.8	10
117	Microwave-assisted decoration of cotton fabrics with Nickel-Cobalt sulfide as a wearable glucose sensing platform. <i>Journal of Electroanalytical Chemistry</i> , 2021 , 890, 115244	4.1	11
116	Silver-based nanomaterials: A critical review on factors affecting water disinfection performance and silver release. <i>Critical Reviews in Environmental Science and Technology</i> , 2021 , 51, 2389-2423	11.1	8
115	Advances in protective layer-coating on metal nanowires with enhanced stability and their applications. <i>Applied Materials Today</i> , 2021 , 22, 100909	6.6	11
114	Highly stable silver-platinum core-shell nanowires for HO detection. <i>Nanoscale</i> , 2021 , 13, 13129-13141	7.7	3
113	Fabric based wearable triboelectric nanogenerators for human machine interface. <i>Nano Energy</i> , 2021 , 89, 106412	17.1	15
112	Wearable supercapacitors based on nickel tungstate decorated commercial cotton fabrics. <i>International Journal of Energy Research</i> , 2020 , 44, 7603-7616	4.5	15
111	Biomass-derived wearable energy storage systems based on poplar tree-cotton fibers coupled with binary nickel-cobalt nanostructures. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 643-654	5.8	25
110	A Point-of-Use (POU) Water Disinfection: Silver Nanowire Decorated Glass Fiber Filters. <i>Journal of Water Process Engineering</i> , 2020 , 38, 101616	6.7	3
109	Plasmonic Light-Management Interfaces by Polyol-Synthesized Silver Nanoparticles for Industrial Scale Silicon Solar Cells. <i>ACS Applied Nano Materials</i> , 2020 , 3, 12231-12239	5.6	2
108	Facile preparation of nanoparticle based SERS substrates for trace molecule detection. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 21139-21146	3.6	6
107	All-Solution-Processed, Oxidation-Resistant Copper Nanowire Networks for Optoelectronic Applications with Year-Long Stability. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 45136-45144	9.5	10
106	Hybrid energy storage device from binder-free zinc-cobalt sulfide decorated biomass-derived carbon microspheres and pyrolyzed polyaniline nanotube-iron oxide. <i>Energy Storage Materials</i> , 2020 , 25, 621-635	19.4	74

105	3D printed antibacterial silver nanowire/poly lactide nanocomposites. <i>Composites Part B: Engineering</i> , 2019 , 172, 671-678	10	37
104	Core/shell copper nanowire networks for transparent thin film heaters. <i>Nanotechnology</i> , 2019 , 30, 3252024	9.4	13
103	Stretchable/flexible silver nanowire Electrodes for energy device applications. <i>Nanoscale</i> , 2019 , 11, 20356720378	10.7	18
102	Silver-nanowire-modified fabrics for wide-spectrum antimicrobial applications. <i>Journal of Materials Research</i> , 2019 , 34, 500-509	2.5	7
101	Paper Based, Expanded Graphite/Polypyrrole Nanocomposite Supercapacitors Free from Binders and Current Collectors. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A283-A290	3.9	16
100	Opto-thermoelectric nanotweezers. <i>Nature Photonics</i> , 2018 , 12, 195-201	33.9	127
99	Coaxial silver nanowire/polypyrrole nanocomposite supercapacitors. <i>Organic Electronics</i> , 2018 , 52, 272-289	3.9	42
98	Heat transfer enhancement by silver nanowire suspensions in microchannel heat sinks. <i>International Journal of Thermal Sciences</i> , 2018 , 123, 1-13	4.1	23
97	Vertically aligned carbon nanotube [Polyaniline nanocomposite supercapacitor electrodes. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 18617-18625	6.7	36
96	A Novel Blue to Transparent Polymer for Electrochromic Supercapacitor Electrodes. <i>Electroanalysis</i> , 2018 , 30, 266-273	3	21
95	All-carbon hybrids for high performance supercapacitors. <i>International Journal of Energy Research</i> , 2018 , 42, 3575-3587	4.5	27
94	Genotoxicity study of high aspect ratio silver nanowires. <i>Toxicological and Environmental Chemistry</i> , 2017 , 99, 837-847	1.4	5
93	Manganese dioxide nanowires on carbon nanofiber frameworks for efficient electrochemical device electrodes. <i>RSC Advances</i> , 2017 , 7, 12351-12358	3.7	18
92	A new high-performance blue to transmissive electrochromic material and use of silver nanowire network electrodes as substrates. <i>Journal of Polymer Science Part A</i> , 2017 , 55, 1680-1686	2.5	20
91	Silver Nanowire/Conducting Polymer Nanocomposite Electrochromic Supercapacitor Electrodes. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A721-A727	3.9	27
90	Paper Based Glucose Biosensor Using Graphene Modified with a Conducting Polymer and Gold Nanoparticles. <i>Journal of the Electrochemical Society</i> , 2017 , 164, G59-G64	3.9	29
89	Metal oxide surfaces for enhanced colorimetric response in bioassays. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017 , 154, 331-340	6	1
88	Enhancing capacitive deionization technology as an effective method for water treatment using commercially available graphene. <i>Water Science and Technology</i> , 2017 , 75, 643-649	2.2	5

87	Nanowire decorated, ultra-thin, single crystalline silicon for photovoltaic devices. <i>Nanotechnology</i> , 2017 , 28, 405205	3.4	10
86	A novel approach for the fabrication of a flexible glucose biosensor: The combination of vertically aligned CNTs and a conjugated polymer. <i>Food Chemistry</i> , 2017 , 220, 299-305	8.5	51
85	Silver nanowire networks as transparent top electrodes for silicon solar cells. <i>Solar Energy</i> , 2017 , 141, 110-117	6.8	13
84	Sequential Deposition of Electrochromic MoO ₃ Thin Films with High Coloration Efficiency and Stability. <i>Journal of the Electrochemical Society</i> , 2017 , 164, E565-E571	3.9	13
83	Flexible, silver nanowire network nickel hydroxide core-shell electrodes for supercapacitors. <i>Journal of Power Sources</i> , 2016 , 328, 167-173	8.9	71
82	Cobalt Oxide Nanoflakes on Single Walled Carbon Nanotube Thin Films for Supercapacitor Electrodes. <i>Electrochimica Acta</i> , 2016 , 222, 1475-1482	6.7	21
81	High-performance, bare silver nanowire network transparent heaters. <i>Nanotechnology</i> , 2016 , 27, 445708	3.4	24
80	Suppressed Hysteretic Field Emission From Polymer Encapsulated Silver Nanowires. <i>IEEE Nanotechnology Magazine</i> , 2016 , 1-1	2.6	
79	Flexible supercapacitor electrodes with vertically aligned carbon nanotubes grown on aluminum foils. <i>Progress in Natural Science: Materials International</i> , 2016 , 26, 232-236	3.6	36
78	Electrical, mechanical and thermal properties of aligned silver nanowire/polylactide nanocomposite films. <i>Composites Part B: Engineering</i> , 2016 , 99, 288-296	10	66
77	An effective surface design based on a conjugated polymer and silver nanowires for the detection of paraoxon in tap water and milk. <i>Sensors and Actuators B: Chemical</i> , 2016 , 228, 278-286	8.5	27
76	Photovoltaic performance of Gallium-doped ZnO thin film/Si nanowires heterojunction diodes. <i>Philosophical Magazine</i> , 2016 , 96, 1093-1109	1.6	16
75	Coaxial silver nanowire network core molybdenum oxide shell supercapacitor electrodes. <i>Electrochimica Acta</i> , 2016 , 193, 39-44	6.7	51
74	Ternary nanocomposite SWNT/WO ₃ /PANI thin film electrodes for supercapacitors. <i>Journal of Alloys and Compounds</i> , 2016 , 658, 183-189	5.7	48
73	All Solution-Based Fabrication of Copper Oxide Thin Film/Cobalt-Doped Zinc Oxide Nanowire Heterojunctions. <i>Journal of the American Ceramic Society</i> , 2016 , 99, 2497-2503	3.8	9
72	Silver nanowire decorated heatable textiles. <i>Nanotechnology</i> , 2016 , 27, 435201	3.4	47
71	Enhanced diode performance in cadmium telluride/silicon nanowire heterostructures. <i>Journal of Alloys and Compounds</i> , 2015 , 644, 131-139	5.7	10
70	Improved diode properties in zinc telluride thin film-silicon nanowire heterojunctions. <i>Philosophical Magazine</i> , 2015 , 95, 1164-1183	1.6	7

69	All-Organic Electrochromic Supercapacitor Electrodes. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A2805-A2810	3.9	33
68	Growth of branched gold nanoparticles on solid surfaces and their use as surface-enhanced Raman scattering substrates. <i>RSC Advances</i> , 2015 , 5, 101656-101663	3.7	9
67	Metal-Enhanced Fluorescence from Silver Nanowires with High Aspect Ratio on Glass Slides for Biosensing Applications. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 675-684	3.8	23
66	Zinc Oxide Nanowire Decorated Single-Use Electrodes for Electrochemical DNA Detection. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 663-668	3.8	6
65	Textile supercapacitors-based on MnO ₂ /SWNT/conducting polymer ternary composites. <i>International Journal of Energy Research</i> , 2015 , 39, 2042-2052	4.5	39
64	Enhanced second harmonic generation from coupled asymmetric plasmonic metal nanostructures. <i>Journal of Optics (United Kingdom)</i> , 2015 , 17, 125005	1.7	9
63	Fabrication and characterization of copper oxide-silicon nanowire heterojunction photodiodes. <i>Journal Physics D: Applied Physics</i> , 2014 , 47, 065106	3	29
62	Nanowire-based multifunctional antireflection coatings for solar cells. <i>Nanoscale</i> , 2014 , 6, 14555-62	7.7	32
61	Transparent and flexible supercapacitors with single walled carbon nanotube thin film electrodes. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 15434-9	9.5	105
60	Influence of thermal annealing on microstructural, morphological, optical properties and surface electronic structure of copper oxide thin films. <i>Materials Chemistry and Physics</i> , 2014 , 147, 987-995	4.4	177
59	Indium rich InGaN solar cells grown by MOCVD. <i>Journal of Materials Science: Materials in Electronics</i> , 2014 , 25, 3652-3658	2.1	10
58	Periodic Nanopillar N-I-P Amorphous Si Photovoltaic Cells Using Carbon Nanotube Scaffolds. <i>IEEE Nanotechnology Magazine</i> , 2014 , 13, 997-1004	2.6	3
57	Germanium nanowire synthesis using solid precursors. <i>Journal of Crystal Growth</i> , 2014 , 392, 20-29	1.6	9
56	Silicon nanowire-silver indium selenide heterojunction photodiodes. <i>Nanotechnology</i> , 2013 , 24, 375203	3.4	16
55	All solution processed, nanowire enhanced ultraviolet photodetectors. <i>Applied Physics Letters</i> , 2013 , 102, 043503	3.4	34
54	ZnO Nanorods as Antireflective Coatings for Industrial-Scale Single-Crystalline Silicon Solar Cells. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 1253-1257	3.8	34
53	Silicon nanowire network metal-semiconductor-metal photodetectors. <i>Applied Physics Letters</i> , 2013 , 103, 083114	3.4	57
52	Performance of nanowire decorated mono- and multi-crystalline Si solar cells. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2013 , 51, 71-74	3	8

51	Optimization of silver nanowire networks for polymer light emitting diode electrodes. <i>Nanotechnology</i> , 2013 , 24, 125202	3.4	131
50	Hierarchically structured nanocarbon electrodes for flexible solid lithium batteries. <i>Nano Energy</i> , 2013 , 2, 1054-1062	17.1	13
49	Highly Efficient Room Temperature Synthesis of Silver-Doped Zinc Oxide (ZnO:Ag) Nanoparticles: Structural, Optical, and Photocatalytic Properties. <i>Journal of the American Ceramic Society</i> , 2013 , 96, 766-773	3.8	132
48	Application of Si Nanowires Fabricated by Metal-Assisted Etching to Crystalline Si Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 548-553	3.7	36
47	Enhanced localized surface plasmon resonance obtained in two step etched silicon nanowires decorated with silver nanoparticles. <i>Applied Physics Letters</i> , 2013 , 103, 143124	3.4	16
46	Zinc oxide nanowire enhanced multifunctional coatings for cotton fabrics. <i>Thin Solid Films</i> , 2012 , 520, 4658-4661	2.2	74
45	Transparent, highly flexible, all nanowire network germanium photodetectors. <i>Nanotechnology</i> , 2012 , 23, 325202	3.4	24
44	Hydrothermal zinc oxide nanowire growth using zinc acetate dihydrate salt. <i>Journal of Materials Research</i> , 2012 , 27, 1445-1451	2.5	56
43	Deposition of Carbon Nanotubes on CMOS. <i>IEEE Nanotechnology Magazine</i> , 2012 , 11, 215-219	2.6	3
42	Nanowires for energy generation. <i>Nanotechnology</i> , 2012 , 23, 194002	3.4	35
41	Zinc oxide nanowire photodetectors with single-walled carbon nanotube thin-film electrodes. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 5142-6	9.5	56
40	Hydrothermal zinc oxide nanowire growth with different zinc salts. <i>Journal of Materials Research</i> , 2012 , 27, 2401-2407	2.5	6
39	Silicon nanowire - poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) heterojunction solar cells. <i>Applied Physics Letters</i> , 2011 , 99, 113510	3.4	47
38	Effect of electroless etching parameters on the growth and reflection properties of silicon nanowires. <i>Nanotechnology</i> , 2011 , 22, 155606	3.4	80
37	Polyol Synthesis of Silver Nanowires: An Extensive Parametric Study. <i>Crystal Growth and Design</i> , 2011 , 11, 4963-4969	3.5	292
36	Enhanced supercapacitors from hierarchical carbon nanotube and nanohorn architectures. <i>Journal of Materials Chemistry</i> , 2011 , 21, 17810		55
35	The mechanism of the sudden termination of carbon nanotube supergrowth. <i>Carbon</i> , 2011 , 49, 214-221	10.4	14
34	Thin-film transistors based on poly(3,3'-dialkyl-quarterthiophene) and zinc oxide nanowires with improved ambient stability. <i>Applied Physics Letters</i> , 2011 , 98, 102106	3.4	3

33	Stable, self-ballasting field emission from zinc oxide nanowires grown on an array of vertically aligned carbon nanofibers. <i>Applied Physics Letters</i> , 2010 , 96, 143114	3.4	32
32	Nanomaterial-enhanced all-solid flexible zinc-carbon batteries. <i>ACS Nano</i> , 2010 , 4, 2730-4	16.7	123
31	Optimisation of CNTs and ZnO nanostructures for electron sources 2010 ,		2
30	ZnO nanowires grown on SOI CMOS substrate for ethanol sensing. <i>Sensors and Actuators B: Chemical</i> , 2010 , 146, 559-565	8.5	87
29	CMOS Alcohol Sensor Employing ZnO Nanowire Sensing Films 2009 ,		3
28	Corrections to Zinc Oxide Nanostructures and High Electron Mobility Nanocomposite Thin Film Transistors [Nov 08 3001-3011]. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 156-156	2.9	2
27	The Use of Terahertz Spectroscopy as a Sensitive Probe in Discriminating the Electronic Properties of Structurally Similar Multi-Walled Carbon Nanotubes. <i>Advanced Materials</i> , 2009 , 21, 3953-3957	24	30
26	Zinc oxide nanowire networks for macroelectronic devices. <i>Applied Physics Letters</i> , 2009 , 94, 163501	3.4	45
25	Understanding the Dielectric Properties of Heat-Treated Carbon Nanofibers at Terahertz Frequencies: a New Perspective on the Catalytic Activity of Structured Carbonaceous Materials. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 10554-10559	3.8	30
24	Direct measurement of charge transport through helical poly(ethyl propiolate) nanorods wired into gaps in single walled carbon nanotubes. <i>Nanotechnology</i> , 2009 , 20, 105201	3.4	12
23	. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 2988-3000	2.9	30
22	. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 3001-3011	2.9	41
21	Field emission from graphene based composite thin films. <i>Applied Physics Letters</i> , 2008 , 93, 233502	3.4	226
20	A solid-state dye-sensitized solar cell based on a novel ionic liquid gel and ZnO nanoparticles on a flexible polymer substrate. <i>Nanotechnology</i> , 2008 , 19, 424006	3.4	62
19	Flexible organic photovoltaics from zinc oxide nanowires grown on transparent and conducting single walled carbon nanotube thin films. <i>Journal of Materials Chemistry</i> , 2008 , 18, 5909		84
18	Growth and process conditions of aligned and patternable films of iron(III) oxide nanowires by thermal oxidation of iron. <i>Nanotechnology</i> , 2008 , 19, 455608	3.4	41
17	Rapid synthesis of aligned zinc oxide nanowires. <i>Nanotechnology</i> , 2008 , 19, 255608	3.4	118
16	Heterojunction photovoltaic devices utilizing single wall carbon nanotube thin films and silicon substrates. <i>Conference Record of the IEEE Photovoltaic Specialists Conference</i> , 2008 ,		1

15	Photoelectrochemical cell using dye sensitized zinc oxide nanowires grown on carbon fibers. <i>Applied Physics Letters</i> , 2008 , 93, 133116	3-4	73
14	Understanding the catalytic activity of heat treated carbon nanofibres: Investigation of their dielectric properties at THz frequencies 2008 ,		1
13	Synthesis of ZnO nanowires for thin film network transistors 2008 ,		7
12	Phototransistors Utilizing Individual WS ₂ Nanotubes 2008 ,		2
11	Modification of transparent and conducting single wall carbon nanotube thin films via bromine functionalization. <i>Applied Physics Letters</i> , 2007 , 90, 092114	3-4	42
10	Voltage-induced dependence of Raman-active modes in single-wall carbon nanotube thin films. <i>Nano Letters</i> , 2007 , 7, 1129-33	11.5	5
9	Optoelectronic properties of transparent and conducting single-wall carbon nanotube thin films. <i>Applied Physics Letters</i> , 2006 , 88, 191919	3-4	46
8	Design criteria for transparent single-wall carbon nanotube thin-film transistors. <i>Nano Letters</i> , 2006 , 6, 677-82	11.5	150
7	Conducting and transparent single-wall carbon nanotube electrodes for polymer-fullerene solar cells. <i>Applied Physics Letters</i> , 2005 , 87, 203511	3-4	440
6	Thin films of hard cubic Zr ₃ N ₄ stabilized by stress. <i>Nature Materials</i> , 2005 , 4, 317-22	27	132
5	Investigation of single-walled carbon nanotube growth parameters using alcohol catalytic chemical vapour deposition. <i>Nanotechnology</i> , 2005 , 16, 2153-63	3-4	55
4	Irreversible blocking of ion channels using functionalized single-walled carbon nanotubes. <i>Nanotechnology</i> , 2005 , 16, 2982-2986	3-4	27
3	Parametric Study of Single-Walled Carbon Nanotubes Using Alcohol Catalytic Chemical Vapor Deposition. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 858, 14		
2	Multifunctional and Physically Transient Supercapacitors, Triboelectric Nanogenerators, and Capacitive Sensors. <i>Advanced Functional Materials</i> , 2106066	15.6	9
1	Thermally Induced Phase Transition and Defect-Assisted Nonlinear Absorption and Optical Limiting in Nanorod Morphology V ₂ O ₅ Thin Films. <i>Advanced Engineering Materials</i> , 2100468	3-5	4