Selmiye Alkan GÃ¼rsel

List of Publications by Year
in descending order

101 papers	2,749 citations	147801 31 h-index	223800 46 g-index
102 all docs	102 docs citations	102 times ranked	2659 citing authors

#	Article	IF	Citations
1	Radiation Grafted Membranes for Polymer Electrolyte Fuel Cells. Fuel Cells, 2005, 5, 317-335.	2.4	227
2	High-Quality Electrochromic Polythiophenes via BF3Â·Et2O Electropolymerization. Advanced Functional Materials, 2003, 13, 331-336.	14.9	131
3	Proton exchange membranes prepared by radiation grafting of styrene/divinylbenzene onto poly(ethylene-alt-tetrafluoroethylene) for low temperature fuel cells. Solid State Ionics, 2005, 176, 2849-2860.	2.7	108
4	Graphene-based technologies for energy applications, challenges and perspectives. 2D Materials, 2015, 2, 030204.	4.4	74
5	Development of graphene supported platinum nanoparticles for polymer electrolyte membrane fuel cells: Effect of support type and impregnationâ€“reduction methods. International Journal of Hydrogen Energy, 2016, 41, 3414-3427.	7.1	71
6	Block copolymers of thiophene-capped poly(methyl methacrylate) with pyrrole. Journal of Polymer Science Part A, 1999, 37, 4218-4225.	2.3	68
7	High stability graphene oxide aerogel supported ultrafine Fe3O4 particles with superior performance as a Li-ion battery anode. Carbon, 2021, 174, 158-172.	10.3	65
8	Preparation of Micro- and Nanopatterns of Polymer Chains Grafted onto Flexible Polymer Substrates. Journal of the American Chemical Society, 2004, 126, 1004-1005.	13.7	64
9	Radiation-grafted materials for energy conversion and energy storage applications. Progress in Polymer Science, 2016, 63, 1-41.	24.7	64
10	Engineered catalyst layer design with graphene-carbon black hybrid supports for enhanced platinum utilization in PEM fuel cell. International Journal of Hydrogen Energy, 2017, 42, 1085-1092.	7.1	64
11	High performance electrocatalysts supported on graphene based hybrids for polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2018, 43, 23221-23230.	7.1	54
12	Immobilization of invertase in functionalized copolymer matrices. Reactive and Functional Polymers, 2000, 45, 227-233.	4.1	53
13	Conducting graft copolymers of poly(3-methylthienyl methacrylate) with pyrrole and thiophene. Journal of Polymer Science Part A, 2002, 40, 4131-4140.	2.3	51
14	Influence of reaction parameters on grafting of styrene into poly(ethylene-alt-tetrafluoroethylene) films. Nuclear Instruments & Methods in Physics Research B, 2007, 265, 198-203.	1.4	50
15	All-carbon hybrids for high performance supercapacitors. International Journal of Energy Research, 2018, 42, 3575-3587.	4.5	43
16	Immobilization of invertase in conducting copolymers of 3-methylthienyl methacrylate. Bioelectrochemistry, 2003, 59, 29-33.	4.6	42
17	The influence of crosslinker on the properties of radiation-grafted films and membranes based on ETFE. Journal of Membrane Science, 2008, 311, 208-215.	8.2	40
18	Comparison of two different catalyst preparation methods for graphene nanoplatelets supported platinum catalysts. International Journal of Hydrogen Energy, 2016, 41, 9755-9761.	7.1	40

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19	An effective electrocatalyst based on platinum nanoparticles supported with graphene nanoplatelets and carbon black hybrid for PEM fuel cells. International Journal of Hydrogen Energy, 2019, 44, 14175-14183.	7.1	38
20	Immobilization of invertase and glucose oxidase in poly 2-methylbutyl-2-(3-thienyl) acetate/polypyrrole matrices. European Polymer Journal, 2003, 39, 2375-2381.	5.4	37
21	Thermal properties of protonâ€conducting radiationâ€grafted membranes. Journal of Applied Polymer Science, 2008, 108, 3577-3585.	2.6	37
22	Novel ETFE based radiation grafted poly(styrene sulfonic acid-co-methacrylonitrile) proton conducting membranes with increased stability. Electrochemistry Communications, 2009, 11, 941-944.	4.7	37
23	Thermodynamically controlled Pt deposition over graphene nanoplatelets: Effect of Pt loading on PEM fuel cell performance. International Journal of Hydrogen Energy, 2017, 42, 19246-19256.	7.1	37
24	Graphene nanoplatelets-carbon black hybrids as an efficient catalyst support for Pt nanoparticles for polymer electrolyte membrane fuel cells. Renewable Energy, 2019, 139, 1099-1110.	8.9	37
25	A facile synthesis and assembly of ultrasmall Pt nanoparticles on reduced graphene oxideâ€carbon black hybrid for enhanced performance in PEMFC. Materials and Design, 2018, 151, 29-36.	7.0	36
26	Development of Efficient Copperâ€Based MOFâ€Derived Catalysts for the Reduction of Aromatic Nitro Compounds. European Journal of Inorganic Chemistry, 2018, 2018, 1073-1079.	2.0	36
27	Immobilization of invertase and glucose oxidase in conducting H-type polysiloxane/polypyrrole block copolymers. Reactive and Functional Polymers, 2003, 57, 57-65.	4.1	35
28	Structural characterization of radiationâ€grafted block copolymer films, using SANS technique. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1660-1668.	2.1	35
29	Electrosprayed catalyst layers based on grapheneâ€“carbon black hybrids for the next-generation fuel cell electrodes. Journal of Materials Science, 2017, 52, 2091-2102.	3.7	35
30	Cross-Linker Effect in ETFE-Based Radiation-Grafted Proton-Conducting Membranes. Journal of the Electrochemical Society, 2008, 155, B921.	2.9	34
31	Synthesis and characterization of novel graft copolymers by radiationâ€induced grafting. Journal of Applied Polymer Science, 2011, 120, 2313-2323.	2.6	34
32	Immobilization of invertase in conducting thiophene-capped poly(methylmethacrylate)/polypyrrole matrices. Journal of Biomaterials Science, Polymer Edition, 1999, 10, 1223-1235.	3.5	32
33	Immobilization of glucose oxidase in polypyrrole/polytetrahydrofuran graft copolymers. International Journal of Biological Macromolecules, 2002, 30, 81-87.	7.5	30
34	Graphene-reinforced poly(vinyl alcohol) electrospun fibers as building blocks for high performance nanocomposites. RSC Advances, 2015, 5, 85009-85018.	3.6	30
35	Influence of Radiationâ€Induced Grafting Process on Mechanical Properties of ETFEâ€Based Membranes for Fuel Cells. Fuel Cells, 2010, 10, 401-410.	2.4	29
36	Binary CuPt alloy nanoparticles assembled on reduced graphene oxide-carbon black hybrid as efficient and cost-effective electrocatalyst for PEMFC. International Journal of Hydrogen Energy, 2019, 44, 14184-14192.	7.1	29

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37	Pt-alloy decorated graphene as an efficient electrocatalyst for PEM fuel cell reactions. Journal of Supercritical Fluids, 2020, 165, 104962.	3.2	29
38	Extreme UV Radiation Grafting of Glycidyl Methacrylate Nanostructures onto Fluoropolymer Foils by RAFT-Mediated Polymerization. Macromolecules, 2008, 41, 6309-6316.	4.8	28
39	Materials for Polymer Electrolyte Fuel Cells. Chimia, 2004, 58, 826-836.	0.6	27
40	Layer-by-Layer Polypyrrole Coated Graphite Oxide and Graphene Nanosheets as Catalyst Support Materials for Fuel Cells. Fullerenes Nanotubes and Carbon Nanostructures, 2013, 21, 233-247.	2.1	27
41	Scalable Synthesis of Sub-Nanosized Platinum-Reduced Graphene Oxide Composite by an Ultraprecise Photocatalytic Method. ACS Sustainable Chemistry and Engineering, 2018, 6, 3773-3782.	6.7	26
42	Synthesis and electroactivity of pyrrole end-functionalized poly(2-methyl-2-oxazoline). European Polymer Journal, 2001, 37, 2225-2229.	5.4	25
43	Differential scanning calorimetry and thermogravimetric analysis investigation of the thermal properties and degradation of some radiation-grafted films and membranes. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 2612-2624.	2.1	25
44	Characterisation of Fuel Cell Membranes as a Function of Drying by Means of Contact Angle Measurements. Fuel Cells, 2004, 4, 141-146.	2.4	25
45	Radiation-Grafted Membranes Using a Trifluorostyrene Derivative. Journal of the Electrochemical Society, 2006, 153, A1964.	2.9	24
46	Patterned grafting of polymer brushes onto flexible polymer substrates. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2004, 22, 3191.	1.6	23
47	Enhancing proton conductivity via sub-micron structures in proton conducting membranes originating from sulfonated PVDF powder by radiation-induced grafting. Solid State Ionics, 2018, 314, 66-73.	2.7	23
48	Cross-Linker Effect in ETFE-Based Radiation-Grafted Proton-Conducting Membranes. Journal of the Electrochemical Society, 2009, 156, B532.	2.9	22
49	The influence of nitrogen doping on reduced graphene oxide as highly cyclable Li-ion battery anode with enhanced performance. International Journal of Hydrogen Energy, 2021, 46, 11865-11877.	7.1	22
50	Radiation Grafted Membranes. , 2008, , 157-217.		21
51	Title is missing!. Journal of Materials Science, 2002, 37, 1767-1775.	3.7	20
52	Influence of the solvent viscosity on surface graft-polymerization reactions. Polymer, 2007, 48, 4936-4942.	3.8	19
53	Green Composite Papers via Use of Natural Binders and Graphene for PEM Fuel Cell Electrodes. ACS Sustainable Chemistry and Engineering, 2017, 5, 8407-8415.	6.7	19
54	Polypyrrole Coated Thermally Exfoliated Graphite Nanoplatelets and the Effect of Oxygen Surface Groups on the Interaction of Platinum Catalysts with Graphene-Based Nanocomposites. Industrial & Engineering Chemistry Research, 2011, 50, 12562-12571.	3.7	18

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55	PVA/PANI/rGO ternary electrospun mats as metal-free anti-bacterial substrates. RSC Advances, 2016, 6, 92434-92442.	3.6	18
56	Homogeneous growth of TiO₂-based nanotubes on nitrogen-doped reduced graphene oxide and its enhanced performance as a Li-ion battery anode. Nanotechnology, 2018, 29, 255402.	2.6	18
57	IMMOBILIZATION OF YEAST CELLS IN SEVERAL CONDUCTING POLYMER MATRICES. Journal of Macromolecular Science - Pure and Applied Chemistry, 2002, 39, 183-197.	2.2	17
58	Flexible carbonâ€“cellulose fiber-based composite gas diffusion layer for polymer electrolyte membrane fuel cells. Journal of Materials Science, 2017, 52, 4968-4976.	3.7	17
59	Water Free Operated Phosphoric Acid Doped Radiationâ€Grafted Proton Conducting Membranes for High Temperature Polymer Electrolyte Membrane Fuel Cells. Fuel Cells, 2014, 14, 914-925.	2.4	16
60	Platinum nanoparticles decorated carbon nanofiber hybrids as highly active electrocatalysts for polymer electrolyte membrane fuel cells. International Journal of Energy Research, 2020, 44, 10251-10261.	4.5	16
61	Nanofiber based hybrid sulfonated silica/P(VDF-TrFE) membranes for PEM fuel cells. International Journal of Hydrogen Energy, 2021, 46, 13583-13593.	7.1	16
62	Polyvinylidene fluoride grafted poly(styrene sulfonic acid) as ionic polymer-metal composite actuator. Sensors and Actuators A: Physical, 2018, 279, 157-167.	4.1	15
63	Immobilization of urease in conducting thiophene-capped poly(methyl methacrylate)/pyrrole matrices. Synthetic Metals, 2001, 123, 95-99.	3.9	14
64	Synthesis and characterization of conducting block copolymers of thiophene-ended polystyrene with polypyrrole. Synthetic Metals, 2001, 119, 133-134.	3.9	14
65	Microstructured proton-conducting membranes by synchrotron-radiation-induced grafting. Journal of Membrane Science, 2008, 325, 658-664.	8.2	14
66	Expansion of titanate nanotubes by the use of a surfactant and its improved performance as an anode in Li-ion batteries. Electrochimica Acta, 2016, 220, 453-464.	5.2	14
67	Metal-Salt Enhanced Grafting of Vinylpyridine and Vinylimidazole Monomer Combinations in Radiation Grafted Membranes for High-Temperature PEM Fuel Cells. ACS Applied Energy Materials, 2020, 3, 532-540.	5.1	14
68	Trace elements in human bone determined by neutron activation analysis. Journal of Radioanalytical and Nuclear Chemistry, 1999, 239, 79-86.	1.5	13
69	A simple spray assisted method to fabricate high performance layered graphene/silicon hybrid anodes for lithium-ion batteries. International Journal of Hydrogen Energy, 2019, 44, 20267-20277.	7.1	12
70	Immobilization of cholesterol oxidase in a conducting copolymer of thiophene-3-yl acetic acid cholesteryl ester with pyrrole. Designed Monomers and Polymers, 2003, 6, 237-243.	1.6	11
71	Microstructured polymer films by X-ray lithographic exposure and grafting. Nuclear Instruments & Methods in Physics Research B, 2005, 236, 449-455.	1.4	11
72	Characterization and fuel cell performance of divinylbenzene crosslinked phosphoric acid doped membranes based on 4-vinylpyridine grafting onto poly(ethylene-co-tetrafluoroethylene) films. International Journal of Hydrogen Energy, 2018, 43, 8088-8099.	7.1	11

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73	Nafionâ€coated <scp>LiNi₀</scp>_.<scp>₈₀Co₀</scp>_.<scp>₁₅Al₀</scp>(<scp>NCA</scp>) cathode preparation and its influence on the Liâ€ion battery cycle performance. Energy Storage, 2020, 2, e154.	4.3	11
74	Emergent hierarchical porosity by ZIF-8/GO nanocomposite increases oxygen electroreduction activity of Pt nanoparticles. International Journal of Hydrogen Energy, 2021, 46, 32858-32870.	7.1	11
75	Simultaneously deposited Pt-alloy nanoparticles over graphene nanoplatelets via supercritical carbon dioxide deposition for PEM fuel cells. Journal of Alloys and Compounds, 2021, 874, 159919.	5.5	11
76	EUV lithographic radiation grafting of thermo-responsive hydrogel nanostructures. Nuclear Instruments & Methods in Physics Research B, 2007, 265, 187-192.	1.4	10
77	The effect of pH on the interlayer distances of elongated titanate nanotubes and their use as a Li-ion battery anode. Nanotechnology, 2016, 27, 015401.	2.6	10
78	Unveiling the presence of mixed oxidation states of Europium in Li_{7+Î´}Eu_xLa_{3â^'Î´}Zr_{2â^'Î´}O_{12â^'Î´} garnet and its impact on the Liâ€ion conductivity. Journal of the American Ceramic Society, 2021, 104, 4257-4271.	3.8	10
79	Investigation of electrochemical actuation by polyaniline nanofibers. Smart Materials and Structures, 2017, 26, 095021.	3.5	8
80	One-step fabrication of new generation graphene-based electrodes for polymer electrolyte membrane fuel cells by a novel electrophoretic deposition. International Journal of Hydrogen Energy, 2021, 46, 5653-5663.	7.1	8
81	Macroscopic assembly of flexible and strong green graphene fibres. RSC Advances, 2017, 7, 26735-26744.	3.6	7
82	A glance at the influence of different dopant elements on Li7La3Zr2O12 garnets. Ionics, 2021, 27, 3673-3698.	2.4	7
83	Fuel-Cell Performance of Multiply-Crosslinked Polymer Electrolyte Membranes Prepared by Two-Step Radiation Technique. ECS Transactions, 2009, 25, 1439-1450.	0.5	6
84	Synthesis and Characterization of Conducting Copolymers of Menthyl Ester of 3-Thiophene Acetic Acid with Pyrrole. Journal of Macromolecular Science - Pure and Applied Chemistry, 2003, 40, 251-264.	2.2	4
85	Preparation and Characterisation of Novel Composites Based on a Radiation Grafted Membrane for Fuel Cells. Fuel Cells, 2011, 11, 361-371.	2.4	4
86	CeO2 nanorod decorated NrGO additives for boosting PEMFC performance. International Journal of Hydrogen Energy, 2021, 46, 32250-32260.	7.1	4
87	Improved Lithium-Ion Transport Within the LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ Secondary Cathode Particles Through a Template-Assisted Synthesis Route. ACS Sustainable Chemistry and Engineering, 2021, 9, 12560-12574.	6.7	4
88	Synthesis, Characterization, and Electrochromic Properties of Conducting Copolymers of 2â€[(3â€Thienylcarbonyl)oxy]ethyl 3â€Thiophene Carboxylate with Thiophene and Pyrrole. Journal of Macromolecular Science - Pure and Applied Chemistry, 2004, 41, 937-947.	2.2	3
89	Crosslinker Effect on Fuel Cell Performance Characteristics of ETFE Based Radiation Grafted Membranes. ECS Transactions, 2007, 11, 27-34.	0.5	3
90	A Continuous-flow Photocatalytic Reactor for the Precisely Controlled Deposition of Metallic Nanoparticles. Journal of Visualized Experiments, 2019, , .	0.3	3

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91	Titania-Based Freestanding Electronically Conductive Electrospun Anodes with Enhanced Performance for Li-Ion Batteries. ACS Applied Energy Materials, 0, , .	5.1	3
92	Synthesis and Characterization of Poly(mâ€tolyloxyâ€coâ€4â€pyridinoxy phosphazene)s and their Application as Proton Exchange Membranes. ChemistrySelect, 2022, 7, .	1.5	3
93	Facile synthesis of polypyrrole/graphene nanosheet-based nanocomposites as catalyst support for fuel cells. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	2
94	Radiation-Grafted Polymer Electrolyte Membranes for Fuel Cells. Hacettepe Journal of Biology and Chemistry, 0, , .	0.9	2
95	An Improved Technique for the Exfoliation of Graphene Nanosheets and Utilization of their Nanocomposites as Fuel Cell Electrodes. Key Engineering Materials, 0, 543, 9-12.	0.4	1
96	Size and Dispersion Control of Pt Nanoparticles Grown Upon Graphite-Derived Nanosheets. Chemical Engineering Communications, 2015, 202, 1645-1656.	2.6	1
97	Arginineâ€glycineâ€aspartate (RGD) peptideâ€modified graphene as efficient support material for Pt electrocatalyst in proton exchange membrane fuel cells. International Journal of Energy Research, 0, , .	4.5	1
98	Pulsedâ€UV illumination on graphene oxide: A new strategy in photocatalytic synthesis of electrocatalysts to control the structural and electrochemical properties. International Journal of Energy Research, 0, , .	4.5	1
99	Publisher's Note: Cross-Linker Effect in ETFE-Based Radiation-Grafted Proton-Conducting Membranes. Journal of the Electrochemical Society, 2008, 155, S7.	2.9	0
100	Surface Modifications of Graphene-based Polymer Nanocomposites by Different Synthesis Techniques. Materials Research Society Symposia Proceedings, 2012, 1451, 131-136.	0.1	0
101	Design and Modeling of High Temperature Water Free Proton Exchange Membranes in DEA PEMFC Operations. ECS Transactions, 2013, 58, 789-794.	0.5	0