HÃ¼seyin Enis Karahan

List of Publications by Year
in descending order

125 papers	14,584 citations	29994 54 h-index	18606 119 g-index
126 all docs	126 docs citations	126 times ranked	18413 citing authors

#	Article	IF	Citations
1	Antibacterial Activity of Graphite, Graphite Oxide, Graphene Oxide, and Reduced Graphene Oxide: Membrane and Oxidative Stress. ACS Nano, 2011, 5, 6971-6980.	7.3	2,384
2	Scalable synthesis of hierarchically structured carbon nanotubeâ€“graphene fibres for capacitive energy storage. Nature Nanotechnology, 2014, 9, 555-562.	15.6	1,312
3	Lateral Dimension-Dependent Antibacterial Activity of Graphene Oxide Sheets. Langmuir, 2012, 28, 12364-12372.	1.6	498
4	Emergence of fiber supercapacitors. Chemical Society Reviews, 2015, 44, 647-662.	18.7	498
5	Sharper and Faster â€œNano Dartsâ€•Kill More Bacteria: A Study of Antibacterial Activity of Individually Dispersed Pristine Single-Walled Carbon Nanotube. ACS Nano, 2009, 3, 3891-3902.	7.3	493
6	Nanomaterials-based photothermal therapy and its potentials in antibacterial treatment. Journal of Controlled Release, 2020, 328, 251-262.	4.8	325
7	MXene Materials for Designing Advanced Separation Membranes. Advanced Materials, 2020, 32, e1906697.	11.1	295
8	Ternary Hybrids of Amorphous Nickel Hydroxideâ€“Carbon Nanotubeâ€Conducting Polymer for Supercapacitors with High Energy Density, Excellent Rate Capability, and Long Cycle Life. Advanced Functional Materials, 2015, 25, 1063-1073.	7.8	288
9	Carbon science in 2016: Status, challenges and perspectives. Carbon, 2016, 98, 708-732.	5.4	261
10	Allâ€Carbon Nanoarchitectures as Highâ€Performance Separation Membranes with Superior Stability. Advanced Functional Materials, 2015, 25, 7348-7359.	7.8	248
11	Controlled Functionalization of Carbonaceous Fibers for Asymmetric Solidâ€State Microâ€Supercapacitors with High Volumetric Energy Density. Advanced Materials, 2014, 26, 6790-6797.	11.1	243
12	Amorphous Bimetallic Oxideâ€“Graphene Hybrids as Bifunctional Oxygen Electrocatalysts for Rechargeable Znâ€“Air Batteries. Advanced Materials, 2017, 29, 1701410.	11.1	243
13	Harnessing Filler Materials for Enhancing Biogas Separation Membranes. Chemical Reviews, 2018, 118, 8655-8769.	23.0	239
14	Electrocatalytic hydrogen evolution under neutral pH conditions: current understandings, recent advances, and future prospects. Energy and Environmental Science, 2020, 13, 3185-3206.	15.6	225
15	Hollow Fiber Membrane Decorated with Ag/MWNTs: Toward Effective Water Disinfection and Biofouling Control. ACS Nano, 2011, 5, 10033-10040.	7.3	217
16	A Flexible Rechargeable Zincâ€“Air Battery with Excellent Lowâ€Temperature Adaptability. Angewandte Chemie - International Edition, 2020, 59, 4793-4799.	7.2	217
17	Toward Flexible Zincâ€Ion Hybrid Capacitors with Superhigh Energy Density and Ultralong Cycling Life: The Pivotal Role of ZnCl₂ Saltâ€Based Electrolytes. Angewandte Chemie - International Edition, 2021, 60, 990-997.	7.2	215
18	Graphene oxide as effective selective barriers on a hollow fiber membrane for water treatment process. Journal of Membrane Science, 2015, 474, 244-253.	4.1	211

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19	Transforming Pristine Carbon Fiber Tows into High Performance Solidâ€State Fiber Supercapacitors. Advanced Materials, 2015, 27, 4895-4901.	11.1	193
20	Recent Advances in Materials and Design of Electrochemically Rechargeable Zincâ€“Air Batteries. Small, 2018, 14, e1801929.	5.2	192
21	Carbon nanomaterials for advancing separation membranes: A strategic perspective. Carbon, 2016, 109, 694-710.	5.4	189
22	Prussian blue, its analogues and their derived materials for electrochemical energy storage and conversion. Energy Storage Materials, 2020, 25, 585-612.	9.5	181
23	Realizing small-flake graphene oxide membranes for ultrafast size-dependent organic solvent nanofiltration. Science Advances, 2020, 6, eaaz9184.	4.7	177
24	Graphene Materials in Antimicrobial Nanomedicine: Current Status and Future Perspectives. Advanced Healthcare Materials, 2018, 7, e1701406.	3.9	166
25	1D Supercapacitors for Emerging Electronics: Current Status and Future Directions. Advanced Materials, 2020, 32, e1902387.	11.1	158
26	Nitrogen doped holey graphene as an efficient metal-free multifunctional electrochemical catalyst for hydrazine oxidation and oxygen reduction. Nanoscale, 2013, 5, 3457.	2.8	154
27	Antibacterial action of dispersed single-walled carbon nanotubes on Escherichia coli and Bacillus subtilis investigated by atomic force microscopy. Nanoscale, 2010, 2, 2744.	2.8	153
28	Sandwich-Architectured Poly(lactic acid)â€“Graphene Composite Food Packaging Films. ACS Applied Materials & Interfaces, 2016, 8, 9994-10004.	4.0	146
29	Flexible Zincâ€Ion Hybrid Fiber Capacitors with Ultrahigh Energy Density and Long Cycling Life for Wearable Electronics. Small, 2019, 15, e1903817.	5.2	143
30	Toward Flexible Zincâ€Ion Hybrid Capacitors with Superhigh Energy Density and Ultralong Cycling Life: The Pivotal Role of ZnCl‹sub›2‹/sub› Saltâ€Based Electrolytes. Angewandte Chemie, 2021, 133, 1003-1010.	1.6	130
31	Textile energy storage: Structural design concepts, material selection and future perspectives. Energy Storage Materials, 2016, 3, 123-139.	9.5	128
32	Recent advances in nanomaterial-modified polyamide thin-film composite membranes for forward osmosis processes. Journal of Membrane Science, 2019, 584, 20-45.	4.1	128
33	Ultrathin nickel boride nanosheets anchored on functionalized carbon nanotubes as bifunctional electrocatalysts for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 764-774.	5.2	123
34	All-carbon solid-state yarn supercapacitors from activated carbon and carbon fibers for smart textiles. Materials Horizons, 2015, 2, 598-605.	6.4	120
35	Selective Synthesis of (9,8) Single Walled Carbon Nanotubes on Cobalt Incorporated TUD-1 Catalysts. Journal of the American Chemical Society, 2010, 132, 16747-16749.	6.6	119
36	How carboxylic groups improve the performance of single-walled carbon nanotube electrochemical capacitors?. Energy and Environmental Science, 2011, 4, 4220.	15.6	119

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37	Enabling highly efficient, flexible and rechargeable quasi-solid-state zn-air batteries via catalyst engineering and electrolyte functionalization. Energy Storage Materials, 2019, 20, 234-242.	9.5	115
38	Nanoâ€RuO₂â€Decorated Holey Graphene Composite Fibers for Microâ€Supercapacitors with Ultrahigh Energy Density. Small, 2018, 14, e1800582.	5.2	113
39	A hierarchically porous nickelâ€“copper phosphide nano-foam for efficient electrochemical splitting of water. Nanoscale, 2017, 9, 4401-4408.	2.8	110
40	Catalysts for chirality selective synthesis of single-walled carbon nanotubes. Carbon, 2015, 81, 1-19.	5.4	106
41	A graphene-covalent organic framework hybrid for high-performance supercapacitors. Energy Storage Materials, 2020, 32, 448-457.	9.5	103
42	Fabrication of novel functionalized multi-walled carbon nanotube immobilized hollow fiber membranes for enhanced performance in forward osmosis process. Journal of Membrane Science, 2013, 446, 244-254.	4.1	102
43	Chiral-Selective CoSO₄/SiO₂ Catalyst for (9,8) Single-Walled Carbon Nanotube Growth. ACS Nano, 2013, 7, 614-626.	7.3	101
44	Hydrogen evolution reaction activity of nickel phosphide is highly sensitive to electrolyte pH. Journal of Materials Chemistry A, 2017, 5, 20390-20397.	5.2	98
45	Space-confined assembly of all-carbon hybrid fibers for capacitive energy storage: realizing a built-to-order concept for micro-supercapacitors. Energy and Environmental Science, 2016, 9, 611-622.	15.6	94
46	A carbon science perspective in 2018: Current achievements and future challenges. Carbon, 2018, 132, 785-801.	5.4	80
47	One-Dimensional van der Waals Heterostructures as Efficient Metal-Free Oxygen Electrocatalysts. ACS Nano, 2021, 15, 3309-3319.	7.3	79
48	A high-performance metal-free hydrogen-evolution reaction electrocatalyst from bacterium derived carbon. Journal of Materials Chemistry A, 2015, 3, 7210-7214.	5.2	75
49	2D materials for 1D electrochemical energy storage devices. Energy Storage Materials, 2019, 19, 102-123.	9.5	71
50	Carbon nanotubes for flexible batteries: recent progress and future perspective. National Science Review, 2021, 8, nwaa261.	4.6	71
51	Effect of different catalyst supports on the (n,m) selective growth of single-walled carbon nanotube from Coâ€“Mo catalyst. Journal of Materials Science, 2009, 44, 3285-3295.	1.7	60
52	Rechargeable zinc-air batteries with neutral electrolytes: Recent advances, challenges, and prospects. EnergyChem, 2021, 3, 100055.	10.1	59
53	Influence of graphene oxide lateral size on the properties and performances of forward osmosis membrane. Desalination, 2020, 484, 114421.	4.0	58
54	Metal-free bifunctional carbon electrocatalysts derived from zeolitic imidazolate frameworks for efficient water splitting. Materials Chemistry Frontiers, 2018, 2, 102-111.	3.2	57

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55	A Flexible Rechargeable Zincâ€“Air Battery with Excellent Lowâ€Temperature Adaptability. Angewandte Chemie, 2020, 132, 4823-4829.	1.6	57
56	Big to Small: Ultrafine Mo₂C Particles Derived from Giant Polyoxomolybdate Clusters for Hydrogen Evolution Reaction. Small, 2019, 15, e1900358.	5.2	53
57	A core-sheath holey graphene/graphite composite fiber intercalated with MoS2 nanosheets for high-performance fiber supercapacitors. Electrochimica Acta, 2019, 305, 493-501.	2.6	51
58	Probing the Diameter Limit of Single Walled Carbon Nanotubes in SWCNT: Fullerene Solar Cells. Advanced Energy Materials, 2016, 6, 1600890.	10.2	50
59	The roles of metal-organic frameworks in modulating water permeability of graphene oxide-based carbon membranes. Carbon, 2019, 148, 277-289.	5.4	50
60	Octahedral Coordinated Trivalent Cobalt Enriched Multimetal Oxygenâ€Evolution Catalysts. Advanced Energy Materials, 2020, 10, 2002593.	10.2	47
61	Graphene oxide laminates intercalated with 2D covalent-organic frameworks as a robust nanofiltration membrane. Journal of Materials Chemistry A, 2020, 8, 9713-9725.	5.2	46
62	Pore Curvature Effect on the Stability of Coâ^'MCM-41 and the Formation of Size-Controllable Subnanometer Co Clustersâ€. Journal of Physical Chemistry B, 2005, 109, 2285-2294.	1.2	45
63	Milk powder-derived bifunctional oxygen electrocatalysts for rechargeable Zn-air battery. Energy Storage Materials, 2018, 11, 134-143.	9.5	45
64	Asymmetric deposition of manganese oxide in single walled carbon nanotube films as electrodes for flexible high frequency response electrochemical capacitors. Electrochimica Acta, 2012, 78, 122-132.	2.6	44
65	Microbe-derived carbon materials for electrical energy storage and conversion. Journal of Energy Chemistry, 2016, 25, 191-198.	7.1	44
66	PDMS-coated porous PVDF hollow fiber membranes for efficient recovery of dissolved biomethane from anaerobic effluents. Journal of Membrane Science, 2019, 584, 333-342.	4.1	44
67	Catalytic activity atlas of ternary Coâ€“Feâ€“V metal oxides for the oxygen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 15951-15961.	5.2	43
68	Drying graphene hydrogel fibers for capacitive energy storage. Carbon, 2020, 164, 100-110.	5.4	43
69	Bacterial physiology is a key modulator of the antibacterial activity of graphene oxide. Nanoscale, 2016, 8, 17181-17189.	2.8	42
70	Assembly of pi-functionalized quaternary ammonium compounds with graphene hydrogel for efficient water disinfection. Journal of Colloid and Interface Science, 2019, 535, 149-158.	5.0	41
71	The on-demand engineering of metal-doped porous carbon nanofibers as efficient bifunctional oxygen catalysts for high-performance flexible Znâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 7297-7308.	5.2	41
72	Scalable fabrication of graphene-based laminate membranes for liquid and gas separations by crosslinking-induced gelation and doctor-blade casting. Carbon, 2019, 155, 129-137.	5.4	40

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73	CoSO4/SiO2 catalyst for selective synthesis of (9, 8) single-walled carbon nanotubes: Effect of catalyst calcination. Journal of Catalysis, 2013, 300, 91-101.	3.1	38
74	Antimicrobial graphene materials: the interplay of complex materials characteristics and competing mechanisms. Biomaterials Science, 2018, 6, 766-773.	2.6	37
75	Overcoming humidity-induced swelling of graphene oxide-based hydrogen membranes using charge-compensating nanodiamonds. Nature Energy, 2021, 6, 1176-1187.	19.8	37
76	Nanocarbon materials in water disinfection: state-of-the-art and future directions. Nanoscale, 2019, 11, 9819-9839.	2.8	35
77	Multifunctional nitrogen-rich â€œbrick-and-mortarâ€•carbon as high performance supercapacitor electrodes and oxygen reduction electrocatalysts. Journal of Materials Chemistry A, 2013, 1, 11061.	5.2	34
78	Hydrothermal assembly of micro-nano-integrated core-sheath carbon fibers for high-performance all-carbon micro-supercapacitors. Energy Storage Materials, 2017, 9, 221-228.	9.5	34
79	Novel Poly(l-lactide)/graphene oxide films with improved mechanical flexibility and antibacterial activity. Journal of Colloid and Interface Science, 2017, 507, 344-352.	5.0	33
80	â€œSmart poisoningâ€•of Co/SiO2catalysts by sulfidation for chirality-selective synthesis of (9,8) single-walled carbon nanotubes. Nanoscale, 2016, 8, 17705-17713.	2.8	32
81	2D Material Based Advanced Membranes for Separations in Organic Solvents. Small, 2020, 16, e2003400.	5.2	31
82	Synergism of Water Shock and a Biocompatible Block Copolymer Potentiates the Antibacterial Activity of Graphene Oxide. Small, 2016, 12, 951-962.	5.2	30
83	Controlling water transport in carbon nanotubes. Nano Today, 2017, 14, 13-15.	6.2	30
84	Membrane-based technologies for post-treatment of anaerobic effluents. Npj Clean Water, 2018, 1, .	3.1	30
85	Graphene-Based Membranes for CO2/CH4 Separation: Key Challenges and Perspectives. Applied Sciences (Switzerland), 2019, 9, 2784.	1.3	29
86	Acetoneâ€Induced Graphene Oxide Film Formation at the Waterâ€“Air Interface. Chemistry - an Asian Journal, 2013, 8, 437-443.	1.7	28
87	Non-covalent synthesis of thermo-responsive graphene oxideâ€“perylene bisimides-containing poly(N-isopropylacrylamide) hybrid for organic pigment removal. Journal of Colloid and Interface Science, 2014, 430, 121-128.	5.0	28
88	Defective crystalline molybdenum phosphides as bifunctional catalysts for hydrogen evolution and hydrazine oxidation reactions during water splitting. Inorganic Chemistry Frontiers, 2019, 6, 2686-2695.	3.0	27
89	Ultralow-platinum-loading nanocarbon hybrids for highly sensitive hydrogen peroxide detection. Sensors and Actuators B: Chemical, 2019, 283, 304-311.	4.0	27
90	How Is Cycle Life of Three-Dimensional Zinc Metal Anodes with Carbon Fiber Backbones Affected by Depth of Discharge and Current Density in Zincâ€“Ion Batteries?. ACS Applied Materials & Interfaces, 2022, 14, 12323-12330.	4.0	27

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91	Sulfur-induced chirality changes in single-walled carbon nanotube synthesis by ethanol chemical vapor deposition on a Co/SiO₂catalyst. Journal of Materials Chemistry A, 2015, 3, 3310-3319.	5.2	26
92	Ultrafast hydrothermal assembly of nanocarbon microfibers in near-critical water for 3D microsupercapacitors. Carbon, 2018, 132, 698-708.	5.4	26
93	Sulfur doped Co/SiO₂catalysts for chirally selective synthesis of single walled carbon nanotubes. Chemical Communications, 2013, 49, 2031-2033.	2.2	25
94	Hydrogen-bonded multilayers of micelles of a dually responsive dicationic block copolymer. Soft Matter, 2012, 8, 827-836.	1.2	24
95	Biofilm-Templated Heteroatom-Doped Carbonâ€“Palladium Nanocomposite Catalyst for Hexavalent Chromium Reduction. ACS Applied Materials & Interfaces, 2019, 11, 24018-24026.	4.0	24
96	The tripartite role of 2D covalent organic frameworks in graphene-based organic solvent nanofiltration membranes. Matter, 2021, 4, 2953-2969.	5.0	24
97	Assemble 2D redox-active covalent organic framework/graphene hybrids as high-performance capacitive materials. Carbon, 2022, 190, 412-421.	5.4	24
98	(9,8) Singleâ€Walled Carbon Nanotube Enrichment via Aqueous Twoâ€Phase Separation and Their Thinâ€Film Transistor Applications. Advanced Electronic Materials, 2015, 1, 1500151.	2.6	23
99	Metallicityâ€Dependent Ultrafast Water Transport in Carbon Nanotubes. Small, 2020, 16, e1907575.	5.2	23
100	Sub-Ã…ngstrÃ¶m-level engineering of ultramicroporous carbons for enhanced sulfur hexafluoride capture. Carbon, 2019, 155, 56-64.	5.4	22
101	Selective synthesis of single walled carbon nanotubes on metal (iron, nickel or cobalt) sulfate-based catalysts. Carbon, 2018, 129, 128-136.	5.4	21
102	Enhanced O2/N2 Separation of Mixed-Matrix Membrane Filled with Pluronic-Compatibilized Cobalt Phthalocyanine Particles. Membranes, 2020, 10, 75.	1.4	20
103	Extraction of (9,8) Singleâ€Walled Carbon Nanotubes by Fluoreneâ€Based Polymers. Chemistry - an Asian Journal, 2014, 9, 868-877.	1.7	18
104	E. coli-derived carbon with nitrogen and phosphorus dual functionalities for oxygen reduction reaction. Catalysis Today, 2015, 249, 228-235.	2.2	18
105	Cobalt Nanoparticles Confined in Carbon Cages Derived from Zeolitic Imidazolate Frameworks as Efficient Oxygen Electrocatalysts for Zincâ€Air Batteries. Batteries and Supercaps, 2019, 2, 355-363.	2.4	16
106	Biomass-derived nanocarbon materials for biological applications: challenges and prospects. Journal of Materials Chemistry B, 2020, 8, 9668-9678.	2.9	16
107	Nickel hydroxideâ€“carbon nanotube nanocomposites as supercapacitor electrodes: crystallinity dependent performances. Nanotechnology, 2015, 26, 314003.	1.3	15
108	Wetting- and fouling-resistant hollow fiber membranes for dissolved methane recovery from anaerobic wastewater treatment effluents. Journal of Membrane Science, 2021, 617, 118621.	4.1	15

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109	Perylene bisimide-incorporated water-soluble polyurethanes for living cell fluorescence labeling. Polymer, 2016, 82, 172-180.	1.8	14
110	Carbon nanotubes integrated into polyamide membranes by support pre-infiltration improve the desalination performance. Carbon, 2021, 185, 546-557.	5.4	14
111	Carbon composite membranes for thermal-driven membrane processes. Carbon, 2021, 179, 600-626.	5.4	12
112	Interfacial engineering of graphenic carbon electrodes by antimicrobial polyhexamethylene guanidine hydrochloride for ultrasensitive bacterial detection. Carbon, 2020, 159, 185-194.	5.4	11
113	pH-stability and pH-annealing of H-bonded multilayer films prepared by layer-by-layer spin-assembly. European Polymer Journal, 2014, 56, 159-167.	2.6	10
114	Cold Chain-Free Storable Hydrogel for Infant-Friendly Oral Delivery of Amoxicillin for the Treatment of Pneumococcal Pneumonia. ACS Applied Materials & Interfaces, 2017, 9, 18440-18449.	4.0	10
115	Polycondensation of a Perylene Bisimide Derivative and L-Malic Acid as Water-Soluble Conjugates for Fluorescent Labeling of Live Mammalian Cells. Polymers, 2018, 10, 559.	2.0	9
116	Synthesis of (9,8) single-walled carbon nanotubes on CoSO4/SiO2 catalysts: The effect of Co mass loadings. Carbon, 2020, 169, 288-296.	5.4	9
117	Structural colour enhanced microfluidics. Nature Communications, 2022, 13, 2281.	5.8	9
118	Cobalt sulfide catalysts for single-walled carbon nanotube synthesis. Diamond and Related Materials, 2021, 114, 108288.	1.8	8
119	Antimicrobial Nanomedicine: Graphene Materials in Antimicrobial Nanomedicine: Current Status and Future Perspectives (Adv. Healthcare Mater. 13/2018). Advanced Healthcare Materials, 2018, 7, 1870050.	3.9	6
120	Cardanol-derived cationic surfactants enabling the superior antibacterial activity of single-walled carbon nanotubes. Nanotechnology, 2020, 31, 265603.	1.3	6
121	Simultaneous DLSâ€“SLS study of titanium and titanium/silicon oxide sol growth. Journal of Sol-Gel Science and Technology, 2015, 76, 251-259.	1.1	3
122	Shadow-casted ultrathin surface coatings of titanium and titanium/silicon oxide sol particles via ultrasound-assisted deposition. Ultrasonics Sonochemistry, 2016, 31, 481-489.	3.8	3
123	Dualâ€Template Pore Engineering of Whey Powderâ€Derived Carbon as an Efficient Oxygen Reduction Reaction Electrocatalyst for Primary Zincâ€Air Battery. Chemistry - an Asian Journal, 2020, 15, 1881-1889.	1.7	3
124	Fiber-shaped micro-supercapacitors. , 2022, , 257-271.		1
125	Antibacterial performance of graphene oxide complemented with pluronic F-127 on physiologically mature gram-negative bacteria. , 2017, , .		0