

# Sultan M Al-Salem

## List of Publications by Year in descending order

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94  
papers

4,598  
citations

236612

25  
h-index

102304

66  
g-index

98  
all docs

98  
docs citations

98  
times ranked

4187  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recycling and recovery routes of plastic solid waste (PSW): A review. <i>Waste Management</i> , 2009, 29, 2625-2643.	3.7	1,648
2	A review on thermal and catalytic pyrolysis of plastic solid waste (PSW). <i>Journal of Environmental Management</i> , 2017, 197, 177-198.	3.8	717
3	The valorization of plastic solid waste (PSW) by primary to quaternary routes: From re-use to energy and chemicals. <i>Progress in Energy and Combustion Science</i> , 2010, 36, 103-129.	15.8	372
4	Plastic Solid Waste (PSW) in the Context of Life Cycle Assessment (LCA) and Sustainable Management. <i>Environmental Management</i> , 2019, 64, 230-244.	1.2	131
5	Kinetic study of high density polyethylene (HDPE) pyrolysis. <i>Chemical Engineering Research and Design</i> , 2010, 88, 1599-1606.	2.7	121
6	Life cycle assessment of alternative technologies for municipal solid waste and plastic solid waste management in the Greater London area. <i>Chemical Engineering Journal</i> , 2014, 244, 391-402.	6.6	119
7	Thermal pyrolysis of high density polyethylene (HDPE) in a novel fixed bed reactor system for the production of high value gasoline range hydrocarbons (HC). <i>Chemical Engineering Research and Design</i> , 2019, 127, 171-179.	2.7	90
8	Investigating the effect of accelerated weathering on the mechanical and physical properties of high content plastic solid waste (PSW) blends with virgin linear low density polyethylene (LLDPE). <i>Polymer Testing</i> , 2015, 46, 116-121.	2.3	59
9	Evidence of microplastics (MP) in gut content of major consumed marine fish species in the State of Kuwait (of the Arabian/Persian Gulf). <i>Marine Pollution Bulletin</i> , 2020, 154, 111052.	2.3	58
10	Monitoring and Modelling the Trends of Primary and Secondary Air Pollution Precursors: The Case of the State of Kuwait. <i>International Journal of Chemical Engineering</i> , 2010, 2010, 1-12.	1.4	57
11	Influence of natural and accelerated weathering on various formulations of linear low density polyethylene (LLDPE) films. <i>Materials &amp; Design</i> , 2009, 30, 1729-1736.	5.1	51
12	Establishing an integrated databank for plastic manufacturers and converters in Kuwait. <i>Waste Management</i> , 2009, 29, 479-484.	3.7	51
13	Thermal Degradation Kinetics of Virgin Polypropylene (PP) and PP with Starch Blends Exposed to Natural Weathering. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 5210-5220.	1.8	51
14	Multi-variable regression analysis for the solid waste generation in the State of Kuwait. <i>Chemical Engineering Research and Design</i> , 2018, 119, 172-180.	2.7	51
15	Fuel production using membrane reactors: a review. <i>Environmental Chemistry Letters</i> , 2020, 18, 1477-1490.	8.3	47
16	Energy Potential of Plastic Waste Valorization: A Short Comparative Assessment of Pyrolysis versus Gasification. <i>Energy &amp; Fuels</i> , 2021, 35, 3558-3571.	2.5	43
17	Kinetics and product distribution of end of life tyres (ELTs) pyrolysis: A novel approach in polyisoprene and SBR thermal cracking. <i>Journal of Hazardous Materials</i> , 2009, 172, 1690-1694.	6.5	42
18	Pyro-Oil and Wax Recovery from Reclaimed Plastic Waste in a Continuous Auger Pyrolysis Reactor. <i>Energies</i> , 2020, 13, 2040.	1.6	42

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19	Influential parameters on natural weathering under harsh climatic conditions of mechanically recycled plastic film specimens. <i>Journal of Environmental Management</i> , 2019, 230, 355-365.	3.8	38
20	An assessment of microplastics threat to the marine environment: A short review in context of the Arabian/Persian Gulf. <i>Marine Environmental Research</i> , 2020, 159, 104961.	1.1	37
21	Non-isothermal degradation kinetics of virgin linear low density polyethylene (LLDPE) and biodegradable polymer blends. <i>Journal of Polymer Research</i> , 2018, 25, 1.	1.2	35
22	Techno-economic assessment of thermo-chemical treatment (TCT) units in the Greater London area. <i>Chemical Engineering Journal</i> , 2014, 248, 253-263.	6.6	33
23	Insights into the evaluation of the abiotic and biotic degradation rate of commercial pro-oxidant filled polyethylene (PE) thin films. <i>Journal of Environmental Management</i> , 2019, 250, 109475.	3.8	33
24	Hydrogen-Rich Gas Stream from Steam Gasification of Biomass: Eggshell as a CO <sub>2</sub> Sorbent. <i>Energy &amp; Fuels</i> , 2020, 34, 4828-4836.	2.5	32
25	Liquid fuel synthesis in microreactors. <i>Reaction Chemistry and Engineering</i> , 2018, 3, 414-432.	1.9	27
26	Study of the degradation profile for virgin linear low-density polyethylene (LLDPE) and polyolefin (PO) plastic waste blends. <i>Journal of Material Cycles and Waste Management</i> , 2019, 21, 1106-1122.	1.6	27
27	On the degradation kinetics of poly(ethylene terephthalate) (PET)/poly(methyl methacrylate) (PMMA) blends in dynamic thermogravimetry. <i>Polymer Degradation and Stability</i> , 2014, 104, 28-32.	2.7	25
28	Modelling of packed bed and coated wall microreactors for methanol steam reforming for hydrogen production. <i>RSC Advances</i> , 2020, 10, 41680-41692.	1.7	25
29	Wax Recovery from the Pyrolysis of Virgin and Waste Plastics. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 8301-8309.	1.8	25
30	Molten Solar Salt Pyrolysis of Mixed Plastic Waste: Process Simulation and Technoeconomic Evaluation. <i>Energy &amp; Fuels</i> , 2020, 34, 7397-7409.	2.5	24
31	Carbon dioxide (CO <sub>2</sub> ) emission sources in Kuwait from the downstream industry: Critical analysis with a current and futuristic view. <i>Energy</i> , 2015, 81, 575-587.	4.5	23
32	Microbial Electrolysis Cells for Decentralised Wastewater Treatment: The Next Steps. <i>Water (Switzerland)</i> , 2021, 13, 445.	1.2	23
33	Study of the fuel properties of extracted oils obtained from low and linear low density polyethylene pyrolysis. <i>Fuel</i> , 2021, 304, 121396.	3.4	21
34	Thermochemical Treatment of Plastic Solid Waste. , 2011, , 233-242.		18
35	Three-dimensional numerical modelling of transport, fate and distribution of microplastics in the northwestern Arabian/Persian Gulf. <i>Marine Pollution Bulletin</i> , 2020, 161, 111723.	2.3	18
36	Valorisation of End of Life Tyres (ELTs) in a Newly Developed Pyrolysis Fixed-Bed Batch Process. <i>Chemical Engineering Research and Design</i> , 2020, 138, 167-175.	2.7	17

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37	Effect of Die Head Temperature at Compounding Stage on the Degradation of Linear Low Density Polyethylene/Plastic Film Waste Blends after Accelerated Weathering. <i>International Journal of Polymer Science</i> , 2016, 2016, 1-18.	1.2	16
38	Determination of biodegradation rate of commercial oxo-biodegradable polyethylene film products using ASTM D 5988. <i>Journal of Polymer Research</i> , 2019, 26, 1.	1.2	16
39	Computational fluid dynamics (CFD) and reaction modelling study of bio-oil catalytic hydrodeoxygenation in microreactors. <i>Reaction Chemistry and Engineering</i> , 2020, 5, 1083-1092.	1.9	16
40	Decomposition of Additive-Free Formic Acid Using a Pd/C Catalyst in Flow: Experimental and CFD Modelling Studies. <i>Catalysts</i> , 2021, 11, 341.	1.6	15
41	Comparative assessment of ambient air quality in two urban areas adjacent to petroleum downstream/upstream facilities in Kuwait. <i>Brazilian Journal of Chemical Engineering</i> , 2008, 25, 683-696.	0.7	14
42	Eggshell as a Carbon Dioxide Sorbent: Kinetics of the Calcination and Carbonation Reactions. <i>Energy &amp; Fuels</i> , 2019, 33, 4474-4486.	2.5	14
43	The first carbon atlas of the state of Kuwait. <i>Energy</i> , 2017, 133, 317-326.	4.5	13
44	Biohydrogen Production by Catalytic Supercritical Water Gasification: A Comparative Study. <i>ACS Omega</i> , 2020, 5, 15390-15401.	1.6	13
45	A review of the valorization and management of industrial spent catalyst waste in the context of sustainable practice: The case of the State of Kuwait in parallel to European industry. <i>Waste Management and Research</i> , 2019, 37, 1127-1141.	2.2	12
46	Baseline soil characterisation of active landfill sites for future restoration and development in the state of Kuwait. <i>International Journal of Environmental Science and Technology</i> , 2020, 17, 4407-4418.	1.8	11
47	Identification of Commercial Oxo-Biodegradable Plastics: Study of UV Induced Degradation in an Effort to Combat Plastic Waste Accumulation. <i>Journal of Polymers and the Environment</i> , 2020, 28, 2364-2376.	2.4	11
48	Slow pyrolysis of end of life tyres (ELTs) grades: Effect of temperature on pyro-oil yield and quality. <i>Journal of Environmental Management</i> , 2022, 301, 113863.	3.8	11
49	Computational Investigation of Microreactor Configurations for Hydrogen Production from Formic Acid Decomposition Using a Pd/C Catalyst. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 1655-1665.	1.8	11
50	Pyrolysis of High-Density Polyethylene in a Fluidized Bed Reactor: Pyro-Wax and Gas Analysis. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 18283-18292.	1.8	11
51	Energy Production From Plastic Solid Waste (PSW). , 2019, , 45-64.		10
52	Feedstock and Optimal Operation for Plastics to Fuel Conversion in Pyrolysis. , 2019, , 117-146.		10
53	Thermal degradation kinetics of real-life reclaimed plastic solid waste (PSW) from an active landfill site: The mining of an unsanitary arid landfill. <i>Ain Shams Engineering Journal</i> , 2021, 12, 983-993.	3.5	10
54	Thermal Response and Degressive Reaction Study of <i>Oxo-Biodegradable</i> Plastic Products Exposed to Various Degradation Media. <i>International Journal of Polymer Science</i> , 2019, 2019, 1-15.	1.2	9

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55	From gangue to the fuel-cells application. <i>Scientific Reports</i> , 2020, 10, 20022.	1.6	9
56	A review on co-pyrolysis of biomass with plastics and tires: recent progress, catalyst development, and scaling up potential. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 8747-8771.	2.9	9
57	Theoretical Investigation of the Deactivation of Ni Supported Catalysts for the Catalytic Deoxygenation of Palm Oil for Green Diesel Production. <i>Catalysts</i> , 2021, 11, 747.	1.6	8
58	Inducing polymer waste biodegradation using oxo-prodegradant and thermoplastic starch based additives. <i>Journal of Polymer Research</i> , 2021, 28, 1.	1.2	7
59	Experimental and Process Modelling Investigation of the Hydrogen Generation from Formic Acid Decomposition Using a Pd/Zn Catalyst. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8462.	1.3	7
60	Primary Pollutants Monitoring and Modeling Using Chemical Mass Balance (CMB) Around Fahaheel Residential Area. <i>American Journal of Environmental Sciences</i> , 2008, 4, 13-21.	0.3	7
61	Hydrogenation of carbon dioxide (CO <sub>2</sub> ) to fuels in microreactors: a review of set-ups and value-added chemicals production. <i>Reaction Chemistry and Engineering</i> , 2022, 7, 795-812.	1.9	7
62	Ozone (O <sub>3</sub> ) ambient levels as a secondary airborne precursor in Fahaheel urban area, the State of Kuwait. <i>Atmospheric Science Letters</i> , 2020, 21, e983.	0.8	6
63	Plastic Solid Waste Assessment in the State of Kuwait and Proposed Methods of Recycling. <i>American Journal of Applied Sciences</i> , 2007, 4, 354-356.	0.1	6
64	On the Kinetics of Degradation Reaction Determined Post Accelerated Weathering of Polyolefin Plastic Waste Blends. <i>International Journal of Environmental Research and Public Health</i> , 2019, 16, 395.	1.2	5
65	Can plastic waste management be a novel solution in combating the novel Coronavirus (COVID-19)? A short research note. <i>Waste Management and Research</i> , 2020, 39, 0734242X2097844.	2.2	5
66	Ambient Air Quality Assessment of Al-Mansoriah Residential Area in the State of Kuwait. <i>Journal of Engineering Research</i> , 2017, 6, 52.	0.2	5
67	Study of the Degradation Behaviour of Virgin and Biodegradable Plastic Films in Marine Environment Using ASTM D 6691. <i>Journal of Polymers and the Environment</i> , 2022, 30, 2329-2340.	2.4	5
68	Life cycle assessment and optimization on the production of petrochemicals and energy from polymers for the Greater London Area. <i>Computer Aided Chemical Engineering</i> , 2012, , 101-106.	0.3	4
69	Top-Down Reactive Approach for the Synthesis of Disordered ZrN Nanocrystalline Bulk Material from Solid Waste. <i>Nanomaterials</i> , 2020, 10, 1826.	1.9	4
70	Solid-State Conversion of Magnesium Waste to Advanced Hydrogen-Storage Nanopowder Particles. <i>Nanomaterials</i> , 2020, 10, 1037.	1.9	4
71	Process Simulation Modelling of the Catalytic Hydrodeoxygenation of 4-Propylguaiaacol in Microreactors. <i>Fuels</i> , 2021, 2, 272-285.	1.3	4
72	Membrane Reactors for Renewable Fuel Production and Their Environmental Benefits. <i>Environmental Chemistry for A Sustainable World</i> , 2020, , 383-411.	0.3	4

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73	THE FIRST CHEMICAL IDENTIFICATION OF POLYOLEFIN (PO) WASTE BLENDS USING INFRARED SPECTROSCOPY. , 2018, , .		4
74	Outdoor air quality data analysis of Al-Mansoriah residential area (Kuwait): air quality indices results. WIT Transactions on Ecology and the Environment, 2008, , .	0.0	4
75	Carbon dioxide (CO <sub>2</sub> ) estimation from Kuwait's petroleum refineries. Chemical Engineering Research and Design, 2015, 95, 38-50.	2.7	3
76	In Situ Aerobic Biodegradation In Soil Contact Using The Standard Test Method of ASTM D 5988-12. IOP Conference Series: Earth and Environmental Science, 2019, 291, 012011.	0.2	3
77	Kinetic Studies Related to Polymer Degradation and Stability. , 2019, , 233-268.		3
78	Variation in Gas Chromatography (GC) analysis in setting up laboratory protocols for waste to energy novel fixed bed reactor setups. International Journal of Energy Production and Management, 2017, 2, 294-305.	1.9	3
79	Investigation of landfill leachate pollution impact on shallow aquifers using numerical simulation. Arabian Journal of Geosciences, 2021, 14, 1.	0.6	3
80	Effect of COVID-19 lockdown measures on the plastic waste generation trends and distribution of microplastics in the Northwestern Arabian/Persian Gulf. Ocean and Coastal Management, 2022, 216, 105979.	2.0	3
81	Soil quality of simulated landfill exposure to plastics in context of heavy metal analysis. Environmental Science and Pollution Research, 2021, 28, 36904-36910.	2.7	2
82	STUDY OF COMMERCIAL THERMOPLASTIC BIODEGRADABLE POLYESTER RESIN AS A SOLID WASTE MITIGATION ROUTE USING ASTM D 5988-18. , 2020, , .		2
83	Economic Feasibility Study of a Carbon Capture and Storage (CCS) Integration Project in an Oil-Driven Economy: The Case of the State of Kuwait. International Journal of Environmental Research and Public Health, 2022, 19, 6490.	1.2	2
84	Degradation Kinetic Parameter Determination of Blends Containing Polyethylene Terephthalate (PET) and Other Polymers with Nanomaterials. , 2015, , 167-194.		1
85	Carbon Dioxide Mitigation. Springer Handbooks, 2017, , 931-953.	0.3	1
86	DEVELOPMENT OF AN ANALYTICAL SOLUTION MATHEMATICAL MODEL FOR A THERMOPLASTIC STARCH AND LINEAR LOW-DENSITY POLYETHYLENE BLENDS FOR PYROLYTIC DEGRADATION. , 2017, , .		1
87	The Sustainability Challenge in the Context of Polymer Degradation. , 2019, , 65-113.		0
88	Research and Development (R&D) Strategies. , 2019, , 507.		0
89	Major Technologies Implemented for Chemicals and Fuel Recovery. , 2019, , 21-44.		0
90	Plastic Wastes to Fuels and Chemicals. Composites Science and Technology, 2021, , 283-309.	0.4	0

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91	Chemical processes effect on ambient air quality: modelling and primary/secondary pollutants monitoring study. WIT Transactions on Ecology and the Environment, 2007, , .	0.0	0
92	CHARACTERISATION OF WASTE POLYOLEFIN BLENDS USING THERMAL AND IMAGING TECHNIQUES AIMED AT PRODUCT DEVELOPMENT. WIT Transactions on Engineering Sciences, 2017, , .	0.0	0
93	MECHANICAL PROFILING OF COMMERCIAL GRADE BIODEGRADABLE PLASTIC FILMS POST EXPOSURE TO NATURAL AND ACCELERATED WEATHERING. , 2019, , .		0
94	INVESTIGATING OZONE AMBIENT LEVELS: CASE STUDY OF THE FAHAHEEL URBAN AREA, STATE OF KUWAIT. , 2019, , .		0