Luigi Gurreri

List of Publications by Year in descending order

42 papers	1,764 citations	331538 21 h-index	360920 35 g-index
42 all docs	42 docs citations	42 times ranked	1058 citing authors

#	Article	IF	Citations
1	Electrodialysis for water desalination: A critical assessment of recent developments on process fundamentals, models and applications. Desalination, 2018, 434, 121-160.	4.0	369
2	Electrodialysis Applications in Wastewater Treatment for Environmental Protection and Resources Recovery: A Systematic Review on Progress and Perspectives. Membranes, 2020, 10, 146.	1.4	212
3	CFD prediction of concentration polarization phenomena in spacer-filled channels for reverse electrodialysis. Journal of Membrane Science, 2014, 468, 133-148.	4.1	130
4	Determination of limiting current density and current efficiency in electrodialysis units. Desalination, 2018, 445, 138-148.	4.0	98
5	Flow and mass transfer in spacer-filled channels for reverse electrodialysis: a CFD parametrical study. Journal of Membrane Science, 2016, 497, 300-317.	4.1	94
6	Coupling CFD with a one-dimensional model to predict the performance of reverse electrodialysis stacks. Journal of Membrane Science, 2017, 541, 595-610.	4.1	74
7	Electrochemical abatement of chloroethanes in water: Reduction, oxidation and combined processes. Electrochimica Acta, 2010, 55, 701-708.	2.6	65
8	CFD analysis of the fluid flow behavior in a reverse electrodialysis stack. Desalination and Water Treatment, 2012, 48, 390-403.	1.0	62
9	CFD modelling of profiled-membrane channels for reverse electrodialysis. Desalination and Water Treatment, 2015, 55, 3404-3423.	1.0	53
10	Multi-physical modelling of reverse electrodialysis. Desalination, 2017, 423, 52-64.	4.0	49
11	Modelling and cost analysis of hybrid systems for seawater desalination: Electromembrane pre-treatments for Reverse Osmosis. Desalination, 2019, 467, 175-195.	4.0	46
12	A hierarchical model for novel schemes of electrodialysis desalination. Desalination, 2019, 465, 79-93.	4.0	43
13	Ionic shortcut currents via manifolds in reverse electrodialysis stacks. Desalination, 2020, 485, 114450.	4.0	38
14	On the modelling of an Acid/Base Flow Battery: An innovative electrical energy storage device based on pH and salinity gradients. Applied Energy, 2020, 277, 115576.	5.1	34
15	Pressure drop at low Reynolds numbers in woven-spacer-filled channels for membrane processes: CFD prediction and experimental validation. , 0, 61, 170-182.		32
16	On some issues in the computational modelling of spacer-filled channels for membrane distillation. Desalination, 2017, 411, 101-111.	4.0	30
17	The Acidâ€“Base Flow Battery: Sustainable Energy Storage via Reversible Water Dissociation with Bipolar Membranes. Membranes, 2020, 10, 409.	1.4	30
18	A comprehensive multi-scale model for bipolar membrane electrodialysis (BMED). Chemical Engineering Journal, 2022, 437, 135317.	6.6	30

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19	Optimization of net power density in Reverse Electrodialysis. Energy, 2019, 181, 576-588.	4.5	26
20	Energy Harvesting by Waste Acid/Base Neutralization via Bipolar Membrane Reverse Electrodialysis. Energies, 2020, 13, 5510.	1.6	25
21	Electrodialysis with asymmetrically profiled membranes: Influence of profiles geometry on desalination performance and limiting current phenomena. Desalination, 2021, 506, 115001.	4.0	25
22	Water desalination by capacitive electrodialysis: Experiments and modelling. Desalination, 2020, 473, 114150.	4.0	23
23	Membrane Deformation and Its Effects on Flow and Mass Transfer in the Electromembrane Processes. International Journal of Molecular Sciences, 2019, 20, 1840.	1.8	20
24	Bipolar membrane reverse electrodialysis for the sustainable recovery of energy from pH gradients of industrial wastewater: Performance prediction by a validated process model. Journal of Environmental Management, 2021, 287, 112319.	3.8	18
25	Reverse electrodialysis. , 2016, , 135-180.		15
26	Coupling of electromembrane processes with reverse osmosis for seawater desalination: Pilot plant demonstration and testing. Desalination, 2022, 526, 115541.	4.0	15
27	CFD prediction of flow, heat and mass transfer in woven spacer-filled channels for membrane processes. International Journal of Heat and Mass Transfer, 2021, 173, 121246.	2.5	14
28	Assessment of temperature polarization in membrane distillation channels by liquid crystal thermography. Desalination and Water Treatment, 2015, 55, 2747-2765.	1.0	13
29	Exergy analysis of electrodialysis for water desalination: Influence of irreversibility sources. Energy Conversion and Management, 2022, 258, 115314.	4.4	11
30	A 2-D model of electrodialysis stacks including the effects of membrane deformation. Desalination, 2021, 500, 114835.	4.0	10
31	A porous media CFD model for the simulation of hemodialysis in hollow fiber membrane modules. Journal of Membrane Science, 2022, 646, 120219.	4.1	10
32	Mass transfer in ducts with transpiring walls. International Journal of Heat and Mass Transfer, 2019, 132, 1074-1086.	2.5	9
33	Performance comparison between overlapped and woven spacers for membrane distillation. , 0, 69, 178-189.		9
34	Pressure-Induced Deformation of Pillar-Type Profiled Membranes and Its Effects on Flow and Mass Transfer. Computation, 2019, 7, 32.	1.0	7
35	CFD prediction of shell-side flow and mass transfer in regular fiber arrays. International Journal of Heat and Mass Transfer, 2021, 168, 120855.	2.5	6
36	Performance Comparison of Alternative Hollow-Fiber Modules for Hemodialysis by Means of a CFD-Based Model. Membranes, 2022, 12, 118.	1.4	6

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37	Fluidâ€“Structure Interaction and Flow Redistribution in Membrane-Bounded Channels. Energies, 2019, 12, 4259.	1.6	5
38	Electrodialysis for wastewater treatmentâ€”Part I: Fundamentals and municipal effluents. , 2020, , 141-192.		4
39	The REAPower Project. , 2019, , 407-448.		2
40	Electromembrane Processes: Experiments and Modelling. Membranes, 2021, 11, 149.	1.4	2
41	Application of computational fluid dynamics technique in membrane distillation processes. , 2022, , 161-208.		0
42	Application of computational fluid dynamics technique in electrodialysis/reverse electrodialysis processes. , 2022, , 81-160.		0