

# Stanisław Koter

## List of Publications by Year in descending order

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79  
papers

1,376  
citations

361296

20  
h-index

377752

34  
g-index

80  
all docs

80  
docs citations

80  
times ranked

1321  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative investigations of ion-exchange membranes. Journal of Membrane Science, 1999, 153, 83-90.	4.1	98
2	Highly Efficient Hydrophobic Titania Ceramic Membranes for Water Desalination. ACS Applied Materials & Interfaces, 2014, 6, 14223-14230.	4.0	95
3	Irreversible thermodynamics of transport across charged membranes. Journal of Membrane Science, 1985, 25, 153-170.	4.1	69
4	Ions and water transport across charged nafion membranes. Irreversible thermodynamics approach. Desalination, 1984, 51, 3-17.	4.0	63
5	Membrane distillation properties of TiO <sub>2</sub> ceramic membranes modified by perfluoroalkylsilanes. Desalination and Water Treatment, 2013, 51, 1352-1361.	1.0	61
6	Efficiency of grafting of Al <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> and ZrO <sub>2</sub> powders by perfluoroalkylsilanes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 420, 64-73.	2.3	58
7	Transport of simple electrolyte solutions through ion-exchange membranes—the capillary model. Journal of Membrane Science, 2002, 206, 201-215.	4.1	53
8	A review - The development of hollow fibre membranes for gas separation processes. International Journal of Greenhouse Gas Control, 2021, 104, 103195.	2.3	41
9	Irreversible thermodynamics of transport across charged membranes. Journal of Membrane Science, 1987, 30, 125-140.	4.1	40
10	Concentration of anthocyanins by the membrane filtration. Separation and Purification Technology, 2007, 57, 418-424.	3.9	39
11	A review of the innovative gas separation membrane bioreactor with mechanisms for integrated production and purification of biohydrogen. Bioresource Technology, 2018, 270, 643-655.	4.8	33
12	Determination of the parameters of the Spiegler–Kedem–Katchalsky model for nanofiltration of single electrolyte solutions. Desalination, 2006, 198, 335-345.	4.0	32
13	The equivalent pore radius of charged membranes from electroosmotic flow. Journal of Membrane Science, 2000, 166, 127-135.	4.1	31
14	A new model for characterization of bipolar membrane electrodialysis of brine. Desalination, 2006, 198, 111-123.	4.0	28
15	Application of membrane techniques in a water softening process. Desalination, 2002, 145, 321-327.	4.0	26
16	Modelling of nanofiltration in softening water. Desalination, 2004, 162, 137-151.	4.0	25
17	New insights into the ideal adsorbed solution theory. Physical Chemistry Chemical Physics, 2015, 17, 7232-7247.	1.3	25
18	Physicochemical properties and pervaporation performance of dense membranes based on cellulose acetate propionate (CAP) and containing polymerizable ionic liquid (PIL). Journal of Membrane Science, 2017, 544, 243-251.	4.1	25

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19	Modeling of the cadmium transport through a bulk liquid membrane. Separation and Purification Technology, 2013, 107, 135-143.	3.9	24
20	Modeling of transport and separation in a thermopervaporation process. Journal of Membrane Science, 2015, 480, 129-138.	4.1	23
21	Transport properties of cation-exchange membranes in aqueous and methanolic solutions. Diffusion and osmosis. Journal of Membrane Science, 1993, 78, 147-153.	4.1	20
22	Electric transport of sulfuric acid through anion-exchange membranes in aqueous solutions. Journal of Membrane Science, 2008, 318, 467-476.	4.1	20
23	Batch electrodialysis of ammonium nitrate and sulfate solutions. Journal of Membrane Science, 2015, 496, 219-228.	4.1	20
24	Possibilities for the biologically-assisted utilization of CO <sub>2</sub> -rich gaseous waste streams generated during membrane technological separation of biohydrogen. Journal of CO <sub>2</sub> Utilization, 2020, 36, 231-243.	3.3	20
25	Characteristics of Ion-Exchange Membranes for Electrodialysis on the Basis of Irreversible Thermodynamics. Journal of Non-Equilibrium Thermodynamics, 1990, 15, .	2.4	19
26	Transport number of counterions in ion-exchange membranes. Separation and Purification Technology, 2001, 22-23, 643-654.	3.9	18
27	Separation of weak and strong acids by electro-electrodialysis – Experiment and theory. Separation and Purification Technology, 2008, 60, 251-258.	3.9	18
28	Irreversible thermodynamics of transport across charged membranes. Part V. Isothermal transport through anion-exchange membranes and macroscopic resistance coefficients. Journal of Membrane Science, 1995, 106, 25-38.	4.1	17
29	Revisiting Wetting, Freezing, and Evaporation Mechanisms of Water on Copper. ACS Applied Materials & Interfaces, 2021, 13, 37893-37903.	4.0	17
30	Two-dimensional gas and vacancy solution approaches in the thermodynamic description of adsorption equilibrium. Journal of Colloid and Interface Science, 2005, 282, 335-339.	5.0	16
31	Modeling of weak acid production by the EDB method. Separation and Purification Technology, 2007, 57, 406-412.	3.9	16
32	Modeling the electric transport of sulfuric and phosphoric acids through anion-exchange membranes. Separation and Purification Technology, 2010, 73, 219-229.	3.9	15
33	Irreversible thermodynamics of transport across charged membranes. Part VI. Frictional interactions and coupling effects in transport of acid through anion exchange membranes. Journal of Membrane Science, 1995, 106, 39-48.	4.1	14
34	The Kedem-Katchalsky equations and the sieve mechanism of membrane transport. Journal of Membrane Science, 2005, 246, 109-111.	4.1	12
35	Importance of the cross-effects in the transport through ion-exchange membranes. Journal of Membrane Science, 2007, 297, 226-235.	4.1	11
36	Correlation between the catalytic and electrocatalytic properties of nitrogen-doped carbon nanooxions and the polarity of the carbon surface: Experimental and theoretical investigations. Carbon, 2019, 151, 120-129.	5.4	11

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37	Are nanohedgehogs thirsty? Toward new superhydrophobic and anti-icing carbon nanohorn-polymer hybrid surfaces. <i>Chemical Engineering Journal</i> , 2022, 446, 137126.	6.6	11
38	Influence of the layer fixed charge distribution on the performance of an ion-exchange membrane. <i>Journal of Membrane Science</i> , 1995, 108, 177-183.	4.1	10
39	Applicability of molecular simulations for modelling the adsorption of the greenhouse gas CF <sub>4</sub> on carbons. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 015004.	0.7	10
40	Modeling the transport of sulfuric acid and its sulfates (MgSO <sub>4</sub> , ZnSO <sub>4</sub> , Na <sub>2</sub> SO <sub>4</sub> ) through an anion-exchange membrane. <i>Desalination</i> , 2014, 342, 75-84.	4.0	10
41	Kinetics and Mechanism of the Reduction of <i>mer</i> -Tris(2-picolinato)ruthenium(III) by <i>L</i> -Ascorbic Acid. <i>European Journal of Inorganic Chemistry</i> , 2014, 2014, 2529-2535.	1.0	10
42	Analysis of Membrane Transport Equations for Reverse Electrodialysis (RED) Using Irreversible Thermodynamics. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6325.	1.8	10
43	Comparative Evaluation of CO <sub>2</sub> Fixation of Microalgae Strains at Various CO <sub>2</sub> Aeration Conditions. <i>Waste and Biomass Valorization</i> , 2021, 12, 2999-3007.	1.8	10
44	Ion-Exchange Membranes for Electrodialysis A Patents Review. <i>Recent Patents on Chemical Engineering</i> , 2011, 4, 141-160.	0.5	10
45	Title is missing!. <i>Angewandte Makromolekulare Chemie</i> , 1980, 86, 157-170.	0.3	9
46	Membrane-assisted removal of hydrocarbons from contaminated soils – laboratory test results. <i>Desalination</i> , 2009, 241, 218-226.	4.0	9
47	Modeling of diffusive transport of benzoic acid through a liquid membrane. <i>Chemical Papers</i> , 2011, 65, .	1.0	9
48	Mechanistic aspects of water adsorption-desorption in porphyrin containing MOFs. <i>Microporous and Mesoporous Materials</i> , 2019, 290, 109649.	2.2	9
49	Irreversible thermodynamics of transport across charged membranes. <i>Journal of Membrane Science</i> , 1987, 30, 141-152.	4.1	7
50	Cellulose Acetate Membranes Modification by Aminosilane Grafting in Supercritical Carbon Dioxide towards Antibiofilm Properties. <i>Membranes</i> , 2022, 12, 33.	1.4	7
51	Current Efficiency and Transport Phenomena in Systems with Charged Membranes. <i>Separation Science and Technology</i> , 1989, 24, 1337-1354.	1.3	6
52	Determination of the electrolyte and osmotic permeability coefficients by conductometric and emf methods. <i>Desalination</i> , 2004, 162, 373-381.	4.0	6
53	Mechanistic Complications Caused by Redox Equilibration: Ascorbate Reduction of a Ruthenium(III) Complex under Low Driving Force Conditions. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 5380-5386.	1.0	6
54	Opening the internal structure for transport of ions: improvement of the structural and chemical properties of single-walled carbon nanohorns for supercapacitor electrodes. <i>RSC Advances</i> , 2020, 10, 38357-38368.	1.7	6

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55	Liquid phase adsorption induced nanosizing of graphene oxide. Carbon, 2021, 183, 948-957.	5.4	6
56	Time-resolved pressure-induced electric potential in nanoporous membranes: Measurement and mechanistic interpretation. Journal of Membrane Science, 2022, 653, 120556.	4.1	6
57	Transport of electrolytes across cation-exchange membranes.. Journal of Membrane Science, 1993, 78, 155-162.	4.1	5
58	CO <sub>2</sub> - Reinforced nanoporous carbon potential energy field during CO <sub>2</sub> /CH <sub>4</sub> mixture adsorption. A comprehensive volumetric, in-situ IR, and thermodynamic insight. Carbon, 2017, 122, 185-193.	5.4	5
59	Modeling the electric transport of HCl and H <sub>3</sub> PO <sub>4</sub> mixture through anion-exchange membranes. Membrane Water Treatment, 2011, 2, 187-205.	0.5	5
60	Linking the Defective Structure of Boron-Doped Carbon Nano-Onions with Their Catalytic Properties: Experimental and Theoretical Studies. ACS Applied Materials & Interfaces, 2021, 13, 51628-51642.	4.0	5
61	Theoretical analysis of steady states for ester hydrolysis in an enzymatic membrane reactor with product retention. Desalination, 2009, 246, 545-555.	4.0	4
62	Concentration of Sodium Hydroxide Solutions by Electrodialysis. Separation Science and Technology, 2012, 47, 1405-1412.	1.3	4
63	Interactions of Hydrated Species in Transport Across Membranes. Zeitschrift Fur Physikalische Chemie, 1986, 148, 247-253.	1.4	3
64	Transport of electrolytes through charged membranes – on the relations between the independent transport coefficients. Desalination, 2009, 241, 75-80.	4.0	3
65	Formation of a promazine radical and promazine 5-oxide in the reaction of promazine with hydrogen peroxide: Mechanistic insight from kinetic and EPR measurements. International Journal of Chemical Kinetics, 2010, 42, 1-9.	1.0	3
66	Feasibility study of polyetherimide membrane for enrichment of carbon dioxide from synthetic biohydrogen mixture and subsequent utilization scenario using microalgae. International Journal of Energy Research, 2021, 45, 8327-8334.	2.2	3
67	Modelling of lead ions transport through bulk liquid membrane. , 0, 181, 213-220.		3
68	Theoretical analysis of the performance of composite membrane consisting of the catalytic and nanofiltration layers. Journal of Membrane Science, 2006, 280, 65-72.	4.1	2
69	The oxidative degradation and C-C coupling reaction of dibenzoazepine derivatives by peroxydisulfate ion and sulfate radical in aqueous media. Reaction Kinetics, Mechanisms and Catalysis, 2012, 107, 1-17.	0.8	2
70	Sorption and Magnetic Properties of Oxalato-Based Trimetallic Open Framework Stabilized by Charge-Assisted Hydrogen Bonds. International Journal of Molecular Sciences, 2022, 23, 1556.	1.8	2
71	Conversion of Osmotic into Mechanical Energy in Systems with Charged Membranes. Journal of Non-Equilibrium Thermodynamics, 1990, 15, 1-10.	2.4	1
72	Diffusive Transport of Benzoic Acid through an Agitated Bulk Liquid Membrane. Separation Science and Technology, 2011, 46, 2465-2472.	1.3	1

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73	Recent Developments in the Electrophoretic Deposition of Carbon Nanomaterials. Engineering Materials, 2021, , 113-137.	0.3	1
74	Ion-Exchange Membranes for Electrodialysis – A Patents Review. Recent Patents on Chemical Engineering, 2011, 4, 141-160.	0.5	1
75	Prediction of retention of uncharged solutes in nanofiltration by means of molecular descriptors. Membrane Water Treatment, 2010, 1, 181-192.	0.5	0
76	Electrodialytic removal of H <sub>2</sub> SO <sub>4</sub> from its aqueous mixture with Na <sub>2</sub> SO <sub>4</sub> . Copernican Letters, 0, 1, 90.	0.0	0
77	Chronopotentiometric Characterization of Electrodialysis Module. Architecture Civil Engineering Environment, 2016, 9, 129-133.	0.6	0
78	Filtration properties of membranes with active graphene oxide layer. , 0, 64, 350-358.		0
79	Reverse osmosis of ammonium and sodium salt solutions and its model description. , 0, 128, 155-169.		0