

Ondrej Vopicka

List of Publications by Year in descending order

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54
papers

1,171
citations

361045

20
h-index

395343

33
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55
all docs

55
docs citations

55
times ranked

1089
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of physical aging on the gas transport and sorption in PIM-1 membranes. <i>Polymer</i> , 2017, 113, 283-294.	1.8	123
2	Equilibrium and transient sorption of vapours and gases in the polymer of intrinsic microporosity PIM-1. <i>Journal of Membrane Science</i> , 2013, 434, 148-160.	4.1	77
3	CO ₂ /CH ₄ separation performance of ionic-liquid-based epoxy-amine ion gel membranes under mixed feed conditions relevant to biogas processing. <i>Journal of Membrane Science</i> , 2017, 528, 64-71.	4.1	68
4	Permeation and sorption properties of poly(ether-block-amide) membranes filled by two types of zeolites. <i>Separation and Purification Technology</i> , 2011, 80, 418-427.	3.9	62
5	Comparative study of sorption and permeation techniques for the determination of heptane and toluene transport in polyethylene membranes. <i>Journal of Membrane Science</i> , 2009, 338, 161-174.	4.1	56
6	Mixed gas sorption in glassy polymeric membranes: II. CO ₂ /CH ₄ mixtures in a polymer of intrinsic microporosity (PIM-1). <i>Journal of Membrane Science</i> , 2014, 459, 264-276.	4.1	56
7	Mixed gas sorption in glassy polymeric membranes: I. CO ₂ /CH ₄ and n-C ₄ /CH ₄ mixtures sorption in poly(1-trimethylsilyl-1-propyne) (PTMSP). <i>Journal of Membrane Science</i> , 2014, 449, 97-108.	4.1	56
8	Modeling gas and vapor sorption in a polymer of intrinsic microporosity (PIM-1). <i>Fluid Phase Equilibria</i> , 2013, 347, 35-44.	1.4	42
9	Comparison of pure and mixed gas permeation of the highly fluorinated polymer of intrinsic microporosity PIM-2 under dry and humid conditions: Experiment and modelling. <i>Journal of Membrane Science</i> , 2020, 594, 117460.	4.1	39
10	Aging of polymers of intrinsic microporosity tracked by methanol vapour permeation. <i>Journal of Membrane Science</i> , 2016, 520, 895-906.	4.1	34
11	Pervaporation and vapour permeation of methanol & dimethyl carbonate mixtures through PIM-1 membranes. <i>Separation and Purification Technology</i> , 2019, 217, 206-214.	3.9	29
12	Gas sorption in polymers of intrinsic microporosity: The difference between solubility coefficients determined via time-lag and direct sorption experiments. <i>Journal of Membrane Science</i> , 2019, 570-571, 522-536.	4.1	29
13	Synthesis, preparation and characterization of novel hyperbranched 6FDA-TTM based polyimide membranes for effective CO ₂ separation: Effect of embedded mesoporous silica particles and siloxane linkages. <i>Polymer</i> , 2018, 144, 33-42.	1.8	27
14	Sorption of vapours and liquids in PDMS: novel data and analysis with the GAB model of multilayer adsorption. <i>European Polymer Journal</i> , 2014, 60, 49-57.	2.6	26
15	Thin, High-Flux, Self-Standing, Graphene Oxide Membranes for Efficient Hydrogen Separation from Gas Mixtures. <i>Chemistry - A European Journal</i> , 2017, 23, 11416-11422.	1.7	26
16	Nafion® modified with primary amines: chemical structure, sorption properties and pervaporative separation of methanol-dimethyl carbonate mixtures. <i>European Polymer Journal</i> , 2018, 99, 268-276.	2.6	25
17	Analysis of gas sorption in glassy polymers with the GAB model: An alternative to the dual mode sorption model. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2014, 52, 1490-1495.	2.4	24
18	Sorption of methanol, dimethyl carbonate, methyl acetate, and acetone vapors in CTA and PTMSP: General findings from the GAB Analysis. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016, 54, 561-569.	2.4	23

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19	Blended silicone-ionic liquid membranes: Transport properties of butan-1-ol vapor. <i>European Polymer Journal</i> , 2010, 46, 123-128.	2.6	21
20	Poly(butylene succinate)-cellulose triacetate blends: permeation, pervaporation, sorption and physical structure. <i>Polymer Testing</i> , 2018, 65, 468-479.	2.3	21
21	A new sorption model with a dynamic correction for the determination of diffusion coefficients. <i>Journal of Membrane Science</i> , 2009, 330, 51-56.	4.1	20
22	Mixed matrix membranes based on hyperbranched polyimide and mesoporous silica for gas separation. <i>Desalination and Water Treatment</i> , 2011, 34, 211-215.	1.0	20
23	Separation of methanol-dimethyl carbonate vapour mixtures with PDMS and PTMSP membranes. <i>Separation and Purification Technology</i> , 2017, 174, 1-11.	3.9	20
24	Aroma scalping characteristics of polybutylene succinate based films. <i>Polymer Testing</i> , 2015, 46, 108-115.	2.3	17
25	Ethanol sorption and permeation in fluoropolymer gel membrane containing 1-ethyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide ionic liquid. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 94, 72-77.	1.8	16
26	Sorption of vapour mixtures of methanol and dimethyl carbonate in PDMS: Experimental study. <i>European Polymer Journal</i> , 2015, 73, 480-486.	2.6	15
27	Comparison of transport properties of hyperbranched and linear polyimides. <i>Desalination and Water Treatment</i> , 2010, 14, 165-169.	1.0	14
28	Measuring the transient diffusion of vapor mixtures through dense membranes. <i>Journal of Membrane Science</i> , 2010, 350, 217-225.	4.1	13
29	Vapour permeation and sorption in fluoropolymer gel membrane based on ionic liquid 1-ethyl-3-methylimidazolium bis(trifluoromethylsulphonyl)imide. <i>Chemical Papers</i> , 2014, 68, .	1.0	13
30	Comparison of pervaporation and perstraction for the separation of p-xylene/m-xylene mixtures using PDMS and CTA membranes. <i>Separation and Purification Technology</i> , 2021, 274, 118986.	3.9	13
31	Selective Separation of 1-Butanol from Aqueous Solution through Pervaporation Using PTSMP-Silica Nano Hybrid Membrane. <i>Membranes</i> , 2020, 10, 55.	1.4	12
32	Cyclopentyl methyl ether, tert-amyl methyl ether and tert-butyl methyl ether: density, dynamic viscosity, surface tension and refractive index. <i>Chemical Papers</i> , 2018, 72, 947-954.	1.0	11
33	Transient and Steady Pervaporation of 1-Butanol-Water Mixtures through a Poly[1-(Trimethylsilyl)-1-Propyne] (PTMSP) Membrane. <i>Polymers</i> , 2019, 11, 1943.	2.0	11
34	CeO ₂ -Blended Cellulose Triacetate Mixed-Matrix Membranes for Selective CO ₂ Separation. <i>Membranes</i> , 2021, 11, 632.	1.4	11
35	Anomalous Phenomena Occurring during Permeation and Sorption of C ₁ -C ₆ Alcohol Vapors in Teflon AF 2400. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 10406-10417.	1.8	10
36	Sorption of vapour mixtures of methanol and dimethyl carbonate in PTMSP: Cooperative and competitive sorption in one system. <i>European Polymer Journal</i> , 2016, 75, 243-250.	2.6	10

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37	New approach for description of sorption and swelling phenomena in liquid + polymer membrane systems. Separation and Purification Technology, 2017, 179, 475-485.	3.9	10
38	Sorption, swelling and plasticization of PIM-1 in methanol-dimethyl carbonate vapour mixtures. Polymer, 2021, 218, 123509.	1.8	10
39	Swelling and plasticization of PDMS and PTMSP in methanol and dimethyl carbonate vapors and liquids: Volume, mechanical properties, Raman spectra. Polymer, 2020, 188, 122140.	1.8	8
40	Nafion modified with simple bases and amino acid derivatives: Survey of physical properties and search for effective pervaporation membranes. Polymer Engineering and Science, 2021, 61, 891-905.	1.5	8
41	Phenomenology of vapour sorption in polymers of intrinsic microporosity PIM-1 and PIM-EA-TB: envelopment of sorption isotherms. Current Opinion in Chemical Engineering, 2022, 35, 100786.	3.8	8
42	Polyimides crosslinked with amino group-containing compounds. Polymer Engineering and Science, 2017, 57, 1367-1373.	1.5	6
43	Solubility and diffusivity of six volatile compounds in ionic liquids [BMIM][Tf2N], [BMPy][Tf2N], [BMIM][TfO] and [BMPy][TfO]. Fluid Phase Equilibria, 2022, 557, 113418.	1.4	5
44	Hyperbranched Polyimide-Silica Hybrid Materials: Synthesis, Structure, Dynamics, and Gas Transport Properties. Journal of Macromolecular Science - Physics, 2013, 52, 632-649.	0.4	4
45	Sorption of organic liquids in poly(ethylene chlorotrifluoroethylene) Halar®901: Experimental and theoretical analysis. Polymer Testing, 2017, 58, 199-207.	2.3	4
46	One-pot neutron imaging of surface phenomena, swelling and diffusion during methane absorption in ethanol and n-decane under high pressure. PLoS ONE, 2020, 15, e0238470.	1.1	4
47	Poly[3-ethyl-1-vinyl-imidazolium] diethyl phosphate/Pebax® 1657 Composite Membranes and Their Gas Separation Performance. Membranes, 2020, 10, 224.	1.4	4
48	Integrally skinned asymmetric poly(vinylidene fluoride) hollow fibre membranes: A study of gas and vapour transport properties. Journal of Membrane Science, 2022, 648, 120343.	4.1	3
49	Evaluation of Two Methods for Measuring Vapor Sorption in Polymers. Separation Science and Technology, 2010, 45, 1260-1264.	1.3	2
50	Pervaporation of dichloromethane-cyclopentane and methylal-cyclopentane mixtures through membranes from chloroprene rubber. Journal of Applied Polymer Science, 2021, 138, 51320.	1.3	2
51	Coupling effect during vapour permeation of organic mixtures through polymeric membranes. Desalination and Water Treatment, 2010, 14, 47-51.	1.0	1
52	[P1.038] Sorption and Diffusion of Gases and Vapors in Poly (exo,endo-3,4-bis(trimethylsilyl)Tricyclononene). Procedia Engineering, 2012, 44, 760-761.	1.2	1
53	[P1.037] Sorption of CO2/CH4 Mixtures in PIM-1 and PTMSP Membranes: Experimental Data at 35°C and Modeling. Procedia Engineering, 2012, 44, 758-759.	1.2	0
54	Non Equilibrium Modeling of Sorption of Gases and Vapors in Polymers of Intrinsic Microporosity (PIM). Procedia Engineering, 2012, 44, 147-149.	1.2	0