Hiroyuki Suda

List of Publications by Year
in descending order

60 papers	2,393 citations	218677 26 h-index	206112 48 g-index
60 all docs	60 docs citations	60 times ranked	2124 citing authors

#	Article	IF	Citations
1	Gas Permeation through Micropores of Carbon Molecular Sieve Membranes Derived from Kapton Polyimide. Journal of Physical Chemistry B, 1997, 101, 3988-3994.	2.6	320
2	Hydrothermal synthesis of biocompatible whiskers. Journal of Materials Science, 1994, 29, 3399-3402.	3.7	270
3	Experimental Study of Steam Reforming of Methane in a Thin (6 Î¼M) Pd-Based Membrane Reactor. Industrial & Engineering Chemistry Research, 2005, 44, 1454-1465.	3.7	124
4	Preparation of a Platinum and Palladium/Polyimide Nanocomposite Film as a Precursor of Metal-Doped Carbon Molecular Sieve Membrane via Supercritical Impregnation. Chemistry of Materials, 2004, 16, 2363-2368.	6.7	118
5	Biocompatible whiskers with controlled morphology and stoichiometry. Journal of Materials Research, 1995, 10, 521-529.	2.6	88
6	Alkene/alkane permselectivities of a carbon molecular sieve membrane. Chemical Communications, 1997, , 93-94.	4.1	82
7	Monoclinic .tautm. Hexagonal Phase Transition in Hydroxyapatite Studied by X-ray Powder Diffraction and Differential Scanning Calorimeter Techniques. The Journal of Physical Chemistry, 1995, 99, 6752-6754.	2.9	80
8	Thin and dense Pd/CeO2/MPSS composite membrane for hydrogen separation and steam reforming of methane. Separation and Purification Technology, 2005, 46, 1-10.	7.9	77
9	Gas permeation properties of carbon molecular sieving membranes derived from the polymer blend of polyphenylene oxide (PPO)/polyvinylpyrrolidone (PVP). Journal of Membrane Science, 2007, 296, 139-146.	8.2	76
10	A novel method for the preparation of thin dense Pd membrane on macroporous stainless steel tube filter. Journal of Membrane Science, 2005, 260, 10-18.	8.2	70
11	Thin and defect-free Pd-based composite membrane without any interlayer and substrate penetration by a combined organic and inorganic process. Chemical Communications, 2006, , 1142.	4.1	64
12	Molecular sieving effect of carbonized kapton polyimide membrane. Journal of the Chemical Society Chemical Communications, 1995, , 1179.	2.0	61
13	Hydrogen diffusion coefficient and mobility in palladium as a function of equilibrium pressure evaluated by permeation measurement. Journal of Membrane Science, 2012, 421-422, 355-360.	8.2	52
14	Preparation of thin Pd membrane on CeO2-modified porous metal by a combined method of electroless plating and chemical vapor deposition. Journal of Membrane Science, 2006, 269, 101-108.	8.2	49
15	Thin Pd membrane on Î±-Al2O3 hollow fiber substrate without any interlayer by electroless plating combined with embedding Pd catalyst in polymer template. Journal of Membrane Science, 2008, 310, 93-101.	8.2	45
16	Simultaneously Depositing Pdâ^'Ag Thin Membrane on Asymmetric Porous Stainless Steel Tube and Application To Produce Hydrogen from Steam Reforming of Methane. Industrial & Engineering Chemistry Research, 2006, 45, 648-655.	3.7	44
17	Preparation and gas permeation properties of silicon carbide-based inorganic membranes for hydrogen separation. Desalination, 2006, 193, 252-255.	8.2	41
18	Gas permeation properties of poly(2,6-dimethyl-1,4-phenylene oxide) (PPO) derived carbon membranes prepared on a tubular ceramic support. Journal of Membrane Science, 2006, 279, 372-379.	8.2	39

#	Article	IF	Citations
19	ESR study of singlet oxygen generation and its behavior during the photo-oxidation of P3HT in solution. Chemical Physics Letters, 2015, 624, 87-92.	2.6	35
20	Gas transport properties of carbon molecular sieve membranes derived from metal containing sulfonated poly(phenylene oxide). Desalination, 2006, 193, 66-72.	8.2	34
21	The characterization of CO2 permeation in a CMSM derived from polyimide. Separation and Purification Technology, 2003, 31, 61-69.	7.9	32
22	Novel Carbon Molecular Sieve Membranes Derived from Poly(phenylene oxide) and Its Derivatives for Gas Separation. Chemistry Letters, 2005, 34, 958-959.	1.3	31
23	Gas permeation properties for the post-oxidized polyphenylene oxide (PPO) derived carbon membranes: Effect of the oxidation temperature. Journal of Membrane Science, 2006, 282, 82-88.	8.2	31
24	Structural Evolution during Conversion of Polycarbosilane Precursor into Silicon Carbide-Based Microporous Membranes. Journal of the Ceramic Society of Japan, 2006, 114, 539-544.	1.3	28
25	Asymmetric capillary membrane of a carbon molecular sieve. Journal of the Chemical Society Chemical Communications, 1995, , 1781.	2.0	27
26	Permeation Time Lag and the Concentration Dependence of the Diffusion Coefficient of CO2in a Carbon Molecular Sieve Membrane. Industrial & Engineering Chemistry Research, 2001, 40, 2942-2946.	3.7	27
27	Influence of adsorption on the gas permeation performances in the mesoporous alumina ceramic membrane. Separation and Purification Technology, 2006, 49, 49-55.	7.9	26
28	Initiation of oxygen permeation and POM reaction in different mixed conducting ceramic membrane reactors. Catalysis Today, 2006, 118, 144-150.	4.4	24
29	Characterization of the post-oxidized carbon membranes derived from poly(2,4-dimethyl-1,4-phenylene) Tj ETQq1 1 0.784314 rgBT /Ov	7.9	23
30	Initial photooxidation mechanism leading to reactive radical formation of polythiophene derivatives. Polymer Journal, 2015, 47, 26-30.	2.7	23
31	Thin Defect-Free Pd Membrane Deposited on Asymmetric Porous Stainless Steel Substrate. Industrial & Engineering Chemistry Research, 2005, 44, 8025-8032.	3.7	21
32	Rate constants for the gas-phase reactions of (Z)-CF3CH CHF and (E)-CF3CH CHF with OH radicals at 253â€“328 K. Chemical Physics Letters, 2015, 621, 78-84.	2.6	21
33	Experimental and modeling approaches for the formation of hydroperoxide during the auto-oxidation of polymers: Thermal-oxidative degradation of polyethylene oxide. Chemical Physics Letters, 2016, 657, 83-89.	2.6	20
34	Reinforcement mechanism of functionalized polypropylene containing hydroxyl group nanocomposites studied by rheo-optical near-infrared spectroscopy. European Polymer Journal, 2017, 92, 86-96.	5.4	20
35	Special Articles on Technology and Its Characterization for Synthesis of Inorganic Materials. Hydrothermal Synthesis of Needle-like Apatite Crystal.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1991, 1991, 1402-1407.	0.1	18
36	Depth profiling of the free-volume holes in cellulose triacetate hollow-fiber membranes for reverse osmosis by means of variable-energy positron annihilation lifetime spectroscopy. Desalination, 2014, 344, 86-89.	8.2	18

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37	Effects of oxidation curing on the permeation performances of polyphenylene oxide-derived carbon membranes. Desalination, 2006, 193, 51-57.	8.2	17
38	Highly ductile polypropylene-based nanocomposites by dispersing monodisperse silica nanospheres in functionalized polypropylene containing hydroxyl groups. Polymer, 2016, 99, 63-71.	3.8	17
39	An ESR study on superoxide radical anion generation and its involvement in the photooxidative degradation of poly-3-hexylthiophene in chlorobenzene solution. Chemical Physics Letters, 2014, 605-606, 98-102.	2.6	16
40	Highly Accelerated Aging Method for Poly(ethylene terephthalate) Film Using Xenon Lamp with Heating System. Journal of Polymers, 2016, 2016, 1-9.	0.9	16
41	MALDI-TOF MS Study of the Photooxidation of PCBM and Its Suppression by P3HT. Chemistry Letters, 2015, 44, 339-341.	1.3	15
42	Gas permeation properties in a composite mesoporous alumina ceramic membrane. Korean Journal of Chemical Engineering, 2005, 22, 721-728.	2.7	14
43	Free-volume hole size evaluated by positron annihilation lifetime spectroscopy in the amorphous part of poly(ethylene terephthalate) degraded by a weathering test. Polymer Degradation and Stability, 2014, 110, 389-394.	5.8	14
44	Preparation of Hydroxyapatite Whiskers by Hydrothermal Method.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1995, 1995, 25-29.	0.1	12
45	Preparation of Carbon Membranes Derived from Polymer Blends in the Presence of a Thermally Labile Polymer. Separation Science and Technology, 2007, 42, 59-71.	2.5	12
46	On the influence of the photo-oxidation of P3HT on the conductivity of photoactive film of P3HT:PCBM bulk heterojunctions. Organic Electronics, 2017, 43, 142-147.	2.6	12
47	Highâ€resolution MALDIâ€TOF MS study on analysis of lowâ€molecularâ€weight products from photoâ€oxidation of poly(3â€hexylthiophene). Journal of Mass Spectrometry, 2015, 50, 1006-1012.	1.6	10
48	Analysis of chemiluminescence spectra in oxidative degradation of oleic acid. Chemical Physics Letters, 2013, 565, 138-142.	2.6	9
49	Direct effect of partially photooxidized poly(3-hexylthiophene) on the device characteristics of a bulk heterojunction solar cell. Solar Energy Materials and Solar Cells, 2014, 120, 584-590.	6.2	9
50	Kinetics of gas-phase reactions of cyc-CF2CF2CF2CHFCH2 and trans-cyc-CF2CF2CF2CHFCHF with OH radicals between 253 and 328 K. Chemical Physics Letters, 2015, 639, 199-204.	2.6	9
51	Photooxidation studies on indene-C60 adducts. Solar Energy Materials and Solar Cells, 2015, 143, 135-140.	6.2	9
52	Relationship between photostability and nanostructures in DTS(FBTTh2)2:fullerene bulk-heterojunction films. Solar Energy Materials and Solar Cells, 2016, 151, 96-101.	6.2	7
53	Gas permeation properties of carbon molecular sieve membranes dispersed with palladium nano particles via supercritical CO2 impregnation. Desalination, 2006, 193, 211-214.	8.2	6
54	Fulleropyrrolidine Derivatives with Benzophenone Moiety as Electron Acceptors in Thermally Stable Organic Photovoltaic Devices. Chemistry Letters, 2015, 44, 527-529.	1.3	5

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55	Quick Preparation of Moisture-Saturated Carbon Fiber-Reinforced Plastics and Their Accelerated Ageing Tests Using Heat and Moisture. Polymers, 2016, 8, 242.	4.5	5
56	Degradation of encapsulants for photovoltaic modules made of ethylene vinyl acetate studied by positron annihilation lifetime spectroscopy. Japanese Journal of Applied Physics, 2016, 55, 102302.	1.5	5
57	Influence of oxidation temperature on the gas permeation and separation properties in a microporous carbon membrane. Korean Journal of Chemical Engineering, 2006, 23, 435-440.	2.7	4
58	Photo-Fries rearrangement of phenyl salicylate studied by two-dimensional infrared spectroscopy. Vibrational Spectroscopy, 2015, 81, 131-135.	2.2	4
59	Two-dimensional (2D) Chemiluminescence (CL) correlation spectroscopy for studying thermal oxidation of isotactic polypropylene (iPP). Journal of Molecular Structure, 2016, 1124, 238-243.	3.6	4
60	Thermal stabilization of organic photovoltaic cells using [6,6]-phenyl C61-butyric acid methyl ester analogs: Effects of alkyl substituents on the nanostructures of bulk heterojunction films and their stabilities. Synthetic Metals, 2016, 221, 61-66.	3.9	3