Haksoo Han

List of Publications by Year
in descending order

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106	2,753	186209	233338
papers	citations	28 h-index	45 g-index

108	108	108	2958
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highly-enhanced water resistant and oxygen barrier properties of cross-linked poly(vinyl alcohol) hybrid films for packaging applications. Progress in Organic Coatings, 2015, 85, 68-75.	1.9	141
2	Low-dielectric-constant polyimide aerogel composite films with low water uptake. Polymer Journal, 2016, 48, 829-834.	1.3	129
3	Shape effects of cuprous oxide particles on stability in water and photocatalytic water splitting. Journal of Materials Chemistry A, 2015, 3, 156-162.	5.2	114
4	Polybenzimidazole (PBI-OO) based composite membranes using sulfophenylated TiO2 as both filler and crosslinker, and their use in the HT-PEM fuel cell. Journal of Membrane Science, 2018, 560, 11-20.	4.1	109
5	Preparation and properties of poly(propylene carbonate) and nanosized ZnO composite films for packaging applications. Journal of Applied Polymer Science, 2011, 122, 1101-1108.	1.3	102
6	Preparation and characterization of poly(propylene carbonate)/exfoliated graphite nanocomposite films with improved thermal stability, mechanical properties and barrier properties. Polymer International, 2013, 62, 1386-1394.	1.6	80
7	PolyHIPE Derived Freestanding 3D Carbon Foam for Cobalt Hydroxide Nanorods Based High Performance Supercapacitor. Scientific Reports, 2016, 6, 35490.	1.6	67
8	Structure-property correlations of sulfonated polyimides. I. Effect of bridging groups on membrane properties. Journal of Polymer Science Part A, 2004, 42, 3612-3620.	2.5	64
9	Photocatalytic Properties of Silica-supported TiO2. Topics in Catalysis, 2005, 35, 287-293.	1.3	59
10	Fabrication of highly flexible electromagnetic interference shielding polyimide carbon black composite using hot-pressing method. Composites Part B: Engineering, 2021, 221, 109010.	5.9	58
11	The effect of crosslinked networks with poly(ethylene glycol) on sulfonated polyimide for polymer electrolyte membrane fuel cell. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 1455-1464.	2.4	54
12	Synthesis and characterization of novel UV-Curable PU-Si hybrids: Influence of silica on thermal, mechanical, and water sorption properties of polyurethane acrylates. Macromolecular Research, 2011, 19, 1006-1013.	1.0	54
13	Crosslinked sulfonated polyimide networks as polymer electrolyte membranes in fuel cells. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 2370-2379.	2.4	50
14	Dielectric properties of oxydianiline-based polyimide thin films according to the water uptake. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 2190-2198.	2.4	49
15	Towards solution-processable, thermally robust, transparent polyimide-chain-end tethered organosilicate nanohybrids. Composites Part B: Engineering, 2019, 163, 290-296.	5.9	42
16	Structure-property correlations of sulfonated polyimides. II. Effect of substituent groups on membrane properties. Journal of Polymer Science Part A, 2004, 42, 3621-3630.	2.5	41
17	High temperature anhydrous proton exchange membranes based on chemically-functionalized titanium/polybenzimidazole composites for fuel cells. Materials Letters, 2020, 263, 127167.	1.3	40
18	Residual stress and mechanical properties of polyimide thin films. Journal of Applied Polymer Science, 2009, 113, 976-983.	1.3	39

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19	Synergistic toughening of polymer nanocomposites by hydrogen-bond assisted three-dimensional network of functionalized graphene oxide and carbon nanotubes. Composites Science and Technology, 2017, 149, 228-234.	3.8	37
20	Polybenzimidazole/inorganic composite membrane with advanced performance for high temperature polymer electrolyte membrane fuel cells. Polymer Composites, 2017, 38, 87-95.	2.3	36
21	Thermal properties and water sorption behaviors of epoxy and bismaleimide composites. Macromolecular Research, 2007, 15, 10-16.	1.0	35
22	One-step synthesis of nano-porous monolithic polyimide aerogel. Microporous and Mesoporous Materials, 2016, 234, 35-42.	2.2	35
23	Water-sorption behavior ofP-phenylene diamine-based polyimide thin films. Journal of Applied Polymer Science, 2000, 76, 1315-1323.	1.3	33
24	Water diffusion studies in polyimide thin films. Journal of Applied Polymer Science, 2001, 82, 731-737.	1.3	33
25	Ultraviolet-curable polyurethane acrylate nanocomposite coatings based on surface-modified calcium carbonate. Progress in Organic Coatings, 2015, 85, 22-30.	1.9	33
26	Thermomechanical and optical properties of molecularly controlled polyimides derived from ester derivatives. Polymer, 2017, 108, 502-512.	1.8	32
27	Preparation and properties of poly(urethane acrylate) (PUA) and tetrapod ZnO whisker (TZnOâ€Ÿ) composite films. Polymer International, 2013, 62, 257-265.	1.6	30
28	Facile fabrication of superhydrophobic coatings with polyimide particles using a reactive electrospraying process. Journal of Materials Chemistry, 2012, 22, 16005.	6.7	29
29	Stress behaviors and thermal properties of polyimide thin films depending on the different curing process. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2879-2890.	2.4	28
30	Synthesis and characterization of soluble polyimides containing trifluoromethyl groups in their backbone. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 4303-4312.	2.4	27
31	Correlation of residual stress and adhesion on copper by the effect of chemical structure of polyimides for copperâ€clad laminates. Polymer International, 2008, 57, 350-358.	1.6	27
32	New continuous process developed for synthesizing sponge-type polyimide membrane and its pore size control method via non-solvent induced phase separation (NIPS). Microporous and Mesoporous Materials, 2017, 242, 166-172.	2.2	27
33	Synthesis and characterization of novel poly(amide-imide)s containing 1,3-diamino mesitylene moieties. Journal of Polymer Science Part A, 2004, 42, 137-143.	2.5	26
34	A thermally and mechanically stable eco-friendly nanocomposite for chemical sensor applications. New Journal of Chemistry, 2012, 36, 2368.	1.4	26
35	Fuel cell based on novel hyper-branched polybenzimidazole membrane. Macromolecular Research, 2013, 21, 35-41.	1.0	26
36	Effects of the paraffin wax (PW) content on the thermal and permeation properties of the LDPE/PW composite films. Journal of Polymer Research, 2015, 22, 1.	1.2	26

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37	Preparation and properties of poly(vinyl alcohol)/vinyltrimethoxysilane (PVA/VTMS) hybrid films with enhanced thermal stability and oxygen barrier properties. Macromolecular Research, 2014, 22, 1096-1103.	1.0	24
38	A novel synthesis method for an open-cell microsponge polyimide for heat insulation. Polymer, 2015, 56, 68-72.	1.8	24
39	Enhanced moisture barrier films based on EVOH/exfoliated graphite (EGn) nanocomposite films by solution blending. Macromolecular Research, 2013, 21, 987-994.	1.0	23
40	Interfacial adhesion and self-healing kinetics of multi-stimuli responsive colorless polymer bilayers. Composites Part B: Engineering, 2020, 203, 108451.	5.9	23
41	Synthesis and characterization of new functional poly(urethane-imide) crosslinked networks. Journal of Applied Polymer Science, 2006, 100, 113-123.	1.3	22
42	Sulfonated polyimide and poly (ethylene glycol) diacrylate based semi-interpenetrating polymer network membranes for fuel cells. Journal of Applied Polymer Science, 2007, 104, 2965-2972.	1.3	22
43	Preparation and properties of poly(urethane acrylate) films for ultravioletâ€curable coatings. Journal of Applied Polymer Science, 2010, 118, 2454-2460.	1.3	22
44	Preparation and properties of hydrophobic layered silicate-reinforced UV-curable poly(urethane) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46 1045-1052.	1.9	22
45	Preparation and Characterization of Spherical Polyimide Aerogel Microparticles. Macromolecular Materials and Engineering, 2014, 299, 1081-1088.	1.7	22
46	Low stress polyimide/silica nanocomposites as dielectrics for wafer level chip scale packaging. Materials Letters, 2020, 263, 127204.	1.3	22
47	Highly Transparent, Colorless Optical Film with Outstanding Mechanical Strength and Folding Reliability Using Mismatched Chargeâ€Transfer Complex Intensification. Advanced Functional Materials, 2022, 32, .	7.8	22
48	Thermal, optical, and water sorption properties in composite films of poly(ether imide) and bismaleimides: Effect of chemical structure. Journal of Applied Polymer Science, 2009, 113, 777-783.	1.3	21
49	Synthesis and characterization of novel PPC-silica hybrid with improved thermal, mechanical, and water sorption properties. Macromolecular Research, 2011, 19, 876-882.	1.0	21
50	Continuous supercritical decrosslinking extrusion process for recycling of crosslinked polyethylene waste. Journal of Applied Polymer Science, 2015, 132, .	1.3	21
51	Photoacoustic effect on the electrical and mechanical properties of polymer-infiltrated carbon nanotube fiber/graphene oxide composites. Composites Science and Technology, 2017, 153, 136-144.	3.8	21
52	Water sorption and activation energy in polyimide thin films. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2714-2720.	2.4	20
53	Tunable pore size and porosity of spherical polyimide aerogel by introducing swelling method based on spherulitic formation mechanism. Microporous and Mesoporous Materials, 2019, 288, 109546.	2.2	20
54	Synthesis and characterization of sulfonated polyimides containing aliphatic linkages in the main chain. Polymer International, 2006, 55, 1236-1242.	1.6	19

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55	Optical Properties of Polyimide Thin Films. Effect of Chemical Structure and Morphology. Polymer Journal, 2003, 35, 578-585.	1.3	18
56	Effect of nano-filler dispersion on the thermal, mechanical and water sorption properties of green environmental polymer. Chinese Journal of Polymer Science (English Edition), 2012, 30, 735-743.	2.0	18
57	Water sorption and water-resistance properties of poly(vinyl alcohol)/clay nanocomposite films: Effects of chemical structure and morphology. Polymer Composites, 2015, 36, 660-667.	2.3	18
58	Fabrication of polyimide composite films based on carbon black for highâ€temperature resistance. Polymer Composites, 2014, 35, 2214-2220.	2.3	17
59	Phase Inversion-Induced Porous Polybenzimidazole Fuel Cell Membranes: An Efficient Architecture for High-Temperature Water-Free Proton Transport. Polymers, 2020, 12, 1604.	2.0	17
60	Proton Transport in Aluminum-Substituted Mesoporous Silica Channel-Embedded High-Temperature Anhydrous Proton-Exchange Membrane Fuel Cells. Scientific Reports, 2020, 10, 10352.	1.6	17
61	Water sorption behaviors of the BPDA-based polyimide films depending upon the structural isomers of diamine. Journal of Applied Polymer Science, 2001, 79, 2121-2127.	1.3	16
62	Nitrogenâ€Doped Porous Carbon Structure from Melamineâ€Assisted Polyimide Sheets for Supercapacitor Electrodes. Advanced Sustainable Systems, 2018, 2, 1800007.	2.7	16
63	Dimensionally stable and light-colored polyimide hybrid reinforced with layered silicate. Macromolecular Research, 2016, 24, 104-113.	1.0	15
64	The effects of hydroxyl groups on the thermal and optical properties of poly(amide-imide)s with high adhesion for transparent films. Progress in Organic Coatings, 2017, 112, 37-43.	1.9	15
65	Effect of Poly(amic diethyl ester) Precursor on Residual Stress Behavior of Aromatic Polyimides. Polymer Journal, 1999, 31, 700-706.	1.3	14
66	Effect of Isomeric Oxydiphenylene Diamine on the Water Sorption Behavior of High Temperature Polyimide Thin Films. Polymer Journal, 1999, 31, 324-331.	1.3	14
67	Nanoindentation and optical properties of poly(4,4?-oxydiphenylenep-phenylene pyromellitimide) copolyimide thin films according to thep-phenylene diamine content. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 2202-2214.	2.4	14
68	Preparation of cationic latent initiators containing imidazole group and their effects on the properties of DGEBA epoxy resin. Macromolecular Research, 2011, 19, 989-997.	1.0	14
69	Norbornene end-capped polyimide for low CTE and low residual stress with changes in the diamine linkages. Macromolecular Research, 2015, 23, 776-786.	1.0	14
70	The Effect of Amic Ester Precursor on the Water Sorption Behavior and the Stress Relaxation of High Temperature Polyimide Thin Films. Polymer Journal, 1999, 31, 127-133.	1.3	13
71	Analysis of dimensionally stable copolyimide with a low-level residual stress. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 796-810.	2.4	13
72	Nanoindentation studies of polyimide thin films with various internal linkages in the diamine component. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 861-870.	2.4	13

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73	Residual stress behavior and physical properties of transparent polyimide/surface-modified CaCO3 nanocomposite films. Macromolecular Research, 2014, 22, 669-677.	1.0	13
74	Synthesis of UV Curable, Highly Stretchable, Transparent Poly(urethane-acrylate) Elastomer and Applications Toward Next Generation Technology. Macromolecular Research, 2020, 28, 896-902.	1.0	13
75	Sulfur-Doped Hierarchically Porous Open Cellular Polymer/Acid Complex Electrolyte Membranes for Efficient Water-Free Proton Transport. ACS Sustainable Chemistry and Engineering, 2020, 8, 16156-16163.	3.2	13
76	Effects of Diamines (1,4-Phenylene Diamine and 4,4â€²-Oxydianiline) on Water Sorption Behavior of Polyimide Thin Film. Polymer Journal, 2000, 32, 583-588.	1.3	11
77	Novel poly(methyl methacrylate)â€blockâ€polyurethaneâ€blockâ€poly(methyl methacrylate) triâ€block copolymers through atom transfer radical polymerization. Journal of Applied Polymer Science, 2008, 108, 1538-1544.	1.3	11
78	Effect of tetrapod ZnO whiskers on the physical and moisture barrier properties of transparent polyimide/TZnO-W composite films. Macromolecular Research, 2014, 22, 1243-1252.	1.0	11
79	Infrared transmitting polyimides based on chalcogenide element-blocks with tunable high-refractive indices and broad optical windows. Journal of Materials Chemistry C, 2019, 7, 10574-10580.	2.7	11
80	Polyimide/organosilicate nanocomposites: Residual stress behavior on Si wafer for multichip packaging. Materials Letters, 2019, 247, 171-173.	1.3	11
81	Effect of hydrophobic hexafluoroisopropylidene group on the water sorption behaviors of rigid poly(p-phenylene pyromellitimide) polyimide thin films. Journal of Applied Polymer Science, 2003, 89, 3442-3446.	1.3	10
82	Heat dissipation properties of polyimide nanocomposite films. Korean Journal of Chemical Engineering, 2016, 33, 3245-3250.	1.2	10
83	Thin and surface adhesive ferroelectric poly(vinylidene fluoride) films with Î² phaseâ€inducing amino modified porous silica nanofillers. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 2401-2411.	2.4	10
84	Low dielectric transparent poly(amide-imide) thin film with nano scale porous structure. Macromolecular Research, 2017, 25, 1115-1120.	1.0	10
85	Effects of dianhydrides on the thermal behavior of linear and crosslinked polyimides. Journal of Applied Polymer Science, 2015, 132, .	1.3	9
86	The Effects of Amide Groups on the Thermal and Optical Properties of Poly(amideâ€imide)s with Low Residual Stress for Microelectronic Devices. Macromolecular Chemistry and Physics, 2016, 217, 1174-1184.	1.1	9
87	Polyimideâ€“Epoxy Composites with Superior Bendable Properties for Application in Flexible Electronics. Journal of Electronic Materials, 2017, 46, 4740-4749.	1.0	9
88	Synthesis and characterization of poly(epoxy-imide) crosslinked networks. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 4293-4302.	2.4	8
89	A photoinitiatorâ€free photosensitive polyimide with low dielectric constant. Journal of Applied Polymer Science, 2010, 117, 2937-2945.	1.3	8
90	Effects of calcination temperature on morphological and crystallographic properties of oyster shell as biocidal agent. International Journal of Applied Ceramic Technology, 2021, 18, 302-311.	1.1	8

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91	Water sorption and diffusion behaviors in composite films of poly(ether imide) and bismaleimide. Journal of Applied Polymer Science, 2006, 99, 1692-1697.	1.3	7
92	The Preparation of Sizeâ€‹scp›C‹/scp›ontrollable Hollow Polyimide Microspheres by Surface Imidization of Electrosprayed Droplets. Macromolecular Materials and Engineering, 2014, 299, 424-429.	1.7	6
93	Synthesis of a new diamine and its effect on the residual stress of colorless polyimide. Korean Journal of Chemical Engineering, 2018, 35, 777-783.	1.2	6
94	Flexible polymer thermoelectric device based on PEDOT:PSS and surface treated pyromellitic dianhydrideâ€‹oxydianiline polyimide substrate. Journal of Applied Polymer Science, 2020, 137, 49156.	1.3	6
95	Effects of nanoclay on the properties of low temperature cured polyimide system. Macromolecular Research, 2014, 22, 1160-1164.	1.0	5
96	The effect of the ring opening polymerization and chain spacing on the coefficient of thermal expansion and modulus of polyimide. Journal of Applied Polymer Science, 2015, 132, .	1.3	5
97	Chain end-termination of p-polybenzimidazole by bulk segment for efficient electrochemical power generation and hydrogen separation. Journal of Industrial and Engineering Chemistry, 2020, 91, 85-92.	2.9	5
98	Reduction of dielectric constant by nanovoids formed through chemical treatment on silica crosslinked polyimide and its effect on properties. Journal of Applied Polymer Science, 2018, 135, 45982.	1.3	4
99	Structure Stability, Flame Retardancy, and Antimicrobial Properties of Polyurethane Composite Nanofibers Containing Tannic Acid and Boronâ€‹Doped Carbon Nanotubes. Macromolecular Materials and Engineering, 2021, 306, 2100455.	1.7	3
100	Preparation of Isotropic Carbon Fibers from Kerosene-Purified Coal Tar Pitch by Co-Carbonization with Pyrolysis Fuel Oil. Materials, 2021, 14, 6280.	1.3	3
101	Water sorption behavior in polyimide thin films controlled by inorganic additives. Macromolecular Research, 2014, 22, 431-435.	1.0	2
102	Highly Soluble Fluorinated Polyimides Synthesized with Hydrothermal Process towards Sustainable Green Technology. Polymers, 2021, 13, 3824.	2.0	2
103	Simple assembling process for polyimide aerogel and its application in water pollutants absorption. Journal of Porous Materials, 0, , 1.	1.3	2
104	Pb/In solder bump formation for a flip-chip bonding technique at high speed optical communication devices. , 0, , .		1
105	Stress behaviors and thermal properties of polyimide thin films depending on the different curing process. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 2879-2890.	2.4	1
106	Highly Transparent, Colorless Optical Film with Outstanding Mechanical Strength and Folding Reliability Using Mismatched Chargeâ€‹Transfer Complex Intensification (Adv. Funct. Mater. 20/2022). Advanced Functional Materials, 2022, 32, .	7.8	0