

# Hee Taik Kim

## List of Publications by Year in descending order

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73  
papers

2,702  
citations

186265

28  
h-index

197818

49  
g-index

73  
all docs

73  
docs citations

73  
times ranked

3674  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sol-gel synthesis of mesoporous anatase-brookite and anatase-brookite-rutile TiO <sub>2</sub> nanoparticles and their photocatalytic properties. <i>Journal of Colloid and Interface Science</i> , 2015, 442, 1-7.	9.4	196
2	Optimization of experimental conditions based on the Taguchi robust design for the formation of nano-sized silver particles by chemical reduction method. <i>Chemical Engineering Journal</i> , 2004, 104, 55-61.	12.7	147
3	Production of low-density sodium silicate-based hydrophobic silica aerogel beads by a novel fast gelation process and ambient pressure drying process. <i>Solid State Sciences</i> , 2010, 12, 911-918.	3.2	123
4	Meticulous Overview on the Controlled Release Fertilizers. <i>Advances in Chemistry</i> , 2014, 2014, 1-16.	1.1	117
5	Aminated polyethersulfone-silver nanoparticles (AgNPs-APES) composite membranes with controlled silver ion release for antibacterial and water treatment applications. <i>Materials Science and Engineering C</i> , 2016, 62, 732-745.	7.3	116
6	Optimization of parameters for the synthesis of zinc oxide nanoparticles by Taguchi robust design method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 311, 170-173.	4.7	110
7	Formation of Silica Nanoparticles by Hydrolysis of TEOS Using a Mixed Semi-Batch/Batch Method. <i>Journal of Sol-Gel Science and Technology</i> , 2002, 25, 183-189.	2.4	94
8	Biodiesel production by sulfated mesoporous titania-silica catalysts synthesized by the sol-gel process from less expensive precursors. <i>Chemical Engineering Journal</i> , 2013, 215-216, 600-607.	12.7	91
9	Effective water disinfection using silver nanoparticle containing silica beads. <i>Applied Surface Science</i> , 2013, 266, 280-287.	6.1	88
10	Sol-gel synthesis of photoactive zirconia-titania from metal salts and investigation of their photocatalytic properties in the photodegradation of methylene blue. <i>Powder Technology</i> , 2014, 258, 99-109.	4.2	72
11	Sol-gel synthesis of sodium silicate and titanium oxychloride based TiO <sub>2</sub> -SiO <sub>2</sub> aerogels and their photocatalytic property under UV irradiation. <i>Chemical Engineering Journal</i> , 2013, 231, 502-511.	12.7	71
12	Enhancement of electroconductivity of polyaniline/graphene oxide nanocomposites through in situ emulsion polymerization. <i>Journal of Materials Science</i> , 2014, 49, 1328-1335.	3.7	71
13	Synthesis of sodium silicate-based hydrophilic silica aerogel beads with superior properties: Effect of heat-treatment. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 2156-2162.	3.1	66
14	Synthesis of hydrophilic and hydrophobic xerogels with superior properties using sodium silicate. <i>Microporous and Mesoporous Materials</i> , 2011, 139, 138-147.	4.4	64
15	Preparation of hydrophobic mesoporous silica powder with a high specific surface area by surface modification of a wet-gel slurry and spray-drying. <i>Powder Technology</i> , 2010, 197, 288-294.	4.2	54
16	Preparation of silver nanoparticle containing silica micro beads and investigation of their antibacterial activity. <i>Applied Surface Science</i> , 2011, 257, 6963-6970.	6.1	52
17	Inexpensive sol-gel synthesis of multiwalled carbon nanotube-TiO <sub>2</sub> hybrids for high performance antibacterial materials. <i>Materials Science and Engineering C</i> , 2016, 68, 780-788.	7.3	52
18	Preparation of amino functionalized silica micro beads by dry method for supporting silver nanoparticles with antibacterial properties. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 389, 118-126.	4.7	48

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19	Effect of various structure directing agents on the physicochemical properties of the silica aerogels prepared at an ambient pressure. <i>Applied Surface Science</i> , 2013, 287, 84-90.	6.1	43
20	Surfactant-free synthesis of high surface area silica nanoparticles derived from rice husks by employing the Taguchi approach. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 61, 281-287.	5.8	42
21	Two step synthesis of a mesoporous titania-silica composite from titanium oxychloride and sodium silicate. <i>Powder Technology</i> , 2012, 217, 489-496.	4.2	40
22	Multi-walled carbon nanotube/polyethersulfone nanocomposites for enhanced electrical conductivity, dielectric properties and efficient electromagnetic interference shielding at low thickness. <i>Macromolecular Research</i> , 2016, 24, 1084-1090.	2.4	39
23	CO <sub>2</sub> , N <sub>2</sub> gas sorption and permeation behavior of chitosan membrane. <i>Korean Journal of Chemical Engineering</i> , 1998, 15, 223-226.	2.7	34
24	Enhancement of porosity of sodium silicate and titanium oxychloride based TiO <sub>2</sub> -SiO <sub>2</sub> systems synthesized by sol-gel process and their photocatalytic activity. <i>Microporous and Mesoporous Materials</i> , 2013, 179, 111-121.	4.4	32
25	Kinetics of nonisothermal thermal degradation of styrene-butadiene rubber. <i>Korean Journal of Chemical Engineering</i> , 1999, 16, 543-547.	2.7	31
26	Influence of aging conditions on textural properties of water-glass-based silica aerogels prepared at ambient pressure. <i>Korean Journal of Chemical Engineering</i> , 2010, 27, 1301-1309.	2.7	31
27	Facile route for preparation of silver nanoparticle-coated precipitated silica. <i>Applied Surface Science</i> , 2011, 257, 4250-4256.	6.1	31
28	Synthesis of titanium dioxide nanoparticles using a continuous reaction method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 207, 263-269.	4.7	30
29	Synthesis and characterization of micrometer-sized silica aerogel nanoporous beads. <i>Materials Letters</i> , 2012, 81, 37-40.	2.6	30
30	Influence of titania content on the mesostructure of titania-silica composites and their photocatalytic activity. <i>Powder Technology</i> , 2013, 233, 123-130.	4.2	30
31	Kinetic analysis of thermal decomposition of polymer using a dynamic model. <i>Korean Journal of Chemical Engineering</i> , 2000, 17, 489-496.	2.7	29
32	Sol-gel synthesis of vanadium doped titania: Effect of the synthetic routes and investigation of their photocatalytic properties in the presence of natural sunlight. <i>Applied Surface Science</i> , 2015, 351, 1213-1223.	6.1	28
33	Encapsulated Urea-Kaolinite Nanocomposite for Controlled Release Fertilizer Formulations. <i>Journal of Chemistry</i> , 2015, 2015, 1-17.	1.9	27
34	Titania-silica composites with less aggregated particles. <i>Powder Technology</i> , 2009, 196, 286-291.	4.2	26
35	Thermogravimetric Evaluation for Pyrolysis Kinetics of Styrene-Butadiene Rubber. <i>Journal of Chemical Engineering of Japan</i> , 2003, 36, 1016-1022.	0.6	26
36	Synthesis and characterization of titania-coated silica fine particles by semi-batch process. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2003, 224, 119-126.	4.7	25

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37	Optimal conditions for synthesis of TiO <sub>2</sub> nanoparticles in semi-batch reactor. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 224, 1-9.	4.7	25
38	Preparation of amino-functionalized silica for copper removal from an aqueous solution. Journal of Industrial and Engineering Chemistry, 2012, 18, 83-87.	5.8	23
39	Investigation of the influence of vanadium, iron and nickel dopants on the morphology, and crystal structure and photocatalytic properties of titanium dioxide based nanopowders. Journal of Colloid and Interface Science, 2016, 474, 179-189.	9.4	23
40	Facile and fast synthesis of a reduced graphene oxide/carbon nanotube/iron/silver hybrid and its enhanced performance in catalytic reduction of 4-nitrophenol. Solid State Sciences, 2020, 100, 106107.	3.2	23
41	Silver-doped silica powder with antibacterial properties. Powder Technology, 2012, 215-216, 219-222.	4.2	22
42	Inexpensive synthesis of a high-performance Fe <sub>3</sub> O <sub>4</sub> -SiO <sub>2</sub> -TiO <sub>2</sub> photocatalyst: Magnetic recovery and reuse. Frontiers of Chemical Science and Engineering, 2016, 10, 405-416.	4.4	22
43	Electroconductive performance of polypyrrole/reduced graphene oxide/carbon nanotube composites synthesized via in situ oxidative polymerization. Journal of Materials Science, 2019, 54, 3156-3173.	3.7	22
44	A kinetic analysis of the thermal-oxidative decomposition of expandable polystyrene. Korean Journal of Chemical Engineering, 2006, 23, 761-766.	2.7	21
45	HCl removal characteristics of calcium hydroxide at the dry-type sorbent reaction accelerator using municipal waste incinerator flue gas at a real site. Korean Journal of Chemical Engineering, 2017, 34, 747-756.	2.7	21
46	Sol-gel synthesis of photoactive kaolinite-titania: Effect of the preparation method and their photocatalytic properties. Applied Surface Science, 2015, 331, 98-107.	6.1	20
47	Sequential repetitive chemical reduction technique to study size-property relationships of graphene attached Ag nanoparticle. Solid State Sciences, 2015, 44, 1-9.	3.2	20
48	Synthesis and growth mechanism of TiO <sub>2</sub> -coated SiO <sub>2</sub> fine particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 221, 163-173.	4.7	19
49	Effect of the gelation on the properties of precipitated silica powder produced by acidizing sodium silicate solution at the pilot scale. Chemical Engineering Journal, 2012, 209, 531-536.	12.7	19
50	Mesoporous titania-silica composite from sodium silicate and titanium oxychloride. Part I: grafting method. Journal of Materials Science, 2010, 45, 1255-1263.	3.7	18
51	Comparison of the growth mechanism of TiO <sub>2</sub> -coated SiO <sub>2</sub> particles prepared by sol-gel process and water-in-oil type microemulsion method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 255, 131-137.	4.7	16
52	Electroconductive performance of polypyrrole/graphene nanocomposites synthesized through in situ emulsion polymerization. Journal of Applied Polymer Science, 2015, 132, .	2.6	16
53	Study of the electroconductive properties of conductive polymers-graphene/graphene oxide nanocomposites synthesized via in situ emulsion polymerization. Polymer Composites, 2018, 39, 2142-2150.	4.6	15
54	Effect of Acidity Levels and Feed Rate on the Porosity of Aerogel Extracted from Rice Husk under Ambient Pressure. Nanomaterials, 2019, 9, 300.	4.1	13

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55	Mesoporous titania-silica composite from sodium silicate and titanium oxychloride. Part II: one-pot co-condensation method. <i>Journal of Materials Science</i> , 2010, 45, 1264-1271.	3.7	12
56	Quantitative recovery of high purity nanoporous silica from waste products of the phosphate fertilizer industry. <i>Journal of Industrial and Engineering Chemistry</i> , 2013, 19, 63-67.	5.8	12
57	Specific capacitance-pore texture relationship of biogas slurry mesoporous carbon/MnO <sub>2</sub> composite electrodes for supercapacitors. <i>Nano Structures Nano Objects</i> , 2019, 17, 21-33.	3.5	12
58	Carbon nanotube-based thermoplastic polyurethane-poly(methyl methacrylate) nanocomposites for pressure sensing applications. <i>Polymer Engineering and Science</i> , 2016, 56, 1031-1036.	3.1	11
59	Onsite paper-type colorimetric detector with enhanced sensitivity for alkali ion via polydiacetylene-nanoporous rice husk silica composites. <i>Materials Science and Engineering C</i> , 2019, 99, 900-904.	7.3	11
60	Experimental optimization of the formation of silver dendritic particles by electrochemical technique. <i>Scripta Materialia</i> , 2005, 53, 571-575.	5.2	9
61	Electroconductive and catalytic performance of polypyrrole/montmorillonite/silver composites synthesized through <i>in situ</i> oxidative polymerization. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45986.	2.6	8
62	Growth mechanism of monodispersed TiO <sub>2</sub> fine particles by the hydrolysis of Ti(OC <sub>2</sub> H <sub>5</sub> ) <sub>4</sub> . <i>Korean Journal of Chemical Engineering</i> , 1995, 12, 516-522.	2.7	7
63	Plasticization of chitosan membrane for pervaporation of aqueous ethanol solution. <i>Korean Journal of Chemical Engineering</i> , 1996, 13, 324-327.	2.7	7
64	Synthesis and Characterization of Mesoporous Silica Particles by Sol-Gel Method: Effect of Aging Time on Surface Area and Pore Size. <i>Journal of Chemical Engineering of Japan</i> , 2005, 38, 547-552.	0.6	7
65	Improvement of pulverization efficiency for micro-sized particles grinding by uncooled high-temperature air jet mill using a computational simulation. <i>Chemical Engineering Science</i> , 2019, 207, 1140-1147.	3.8	7
66	Comparison of particle size and standard deviation of TiO <sub>2</sub> particles prepared by batch, semi-batch and continuous reaction method. <i>Journal of the European Ceramic Society</i> , 2003, 23, 833-838.	5.7	6
67	Two-step rapid synthesis of mesoporous silica for green tire. <i>Korean Journal of Chemical Engineering</i> , 2012, 29, 1643-1646.	2.7	6
68	Characterization of Calcium-doped Silica Gel Prepared in an Aqueous Solution. <i>Resources Processing</i> , 2012, 59, 33-41.	0.4	6
69	BET study of silver-doped silica based on an inexpensive method. <i>Materials Letters</i> , 2012, 80, 168-170.	2.6	6
70	Facile, single-pot preparation of nanoporous SiO <sub>2</sub> particles (carrier) with AgNPs at core and crust for controlled disinfectant release. <i>Journal of Saudi Chemical Society</i> , 2019, 23, 828-835.	5.2	6
71	Synthesis and characterization of bimodal silver nanoparticles by using semi-batch method. <i>Journal of Industrial and Engineering Chemistry</i> , 2014, 20, 1830-1833.	5.8	3
72	Sol-gel synthesis of less expensive mesoporous titania-tin dioxide systems: Investigation of the influence of tin dioxide on the phase structure, morphology and optical properties. <i>Materials Research Bulletin</i> , 2017, 88, 281-290.	5.2	2

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73	Influence of reaction conditions on the properties of sodium aluminosilicate synthesized by simultaneous addition of precursors. Journal of Non-Crystalline Solids, 2010, 356, 1466-1469.	3.1	0