

Masao Sumita

List of Publications by Year in descending order

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98
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4,738
citations

117625

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95266

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98
all docs

98
docs citations

98
times ranked

3340
citing authors

#	ARTICLE	IF	CITATIONS
1	Dispersion of fillers and the electrical conductivity of polymer blends filled with carbon black. <i>Polymer Bulletin</i> , 1991, 25, 265-271.	3.3	951
2	Electrical conductivity of carbon-polymer composites as a function of carbon content. <i>Journal of Materials Science</i> , 1982, 17, 1610-1616.	3.7	446
3	Temperature dependence of electrical resistivity for carbon black filled ultra-high molecular weight polyethylene composites prepared by hot compaction. <i>Carbon</i> , 2005, 43, 2544-2553.	10.3	167
4	Crystalline Structure and Morphology of Poly(<i>l</i> -lactide) Formed under High-Pressure CO ₂ . <i>Macromolecules</i> , 2008, 41, 9192-9203.	4.8	140
5	Complex Crystal Formation of Poly(<i>l</i> -lactide) with Solvent Molecules. <i>Macromolecules</i> , 2012, 45, 1384-1397.	4.8	137
6	Tensile yield stress of polypropylene composites filled with ultrafine particles. <i>Journal of Materials Science</i> , 1983, 18, 1758-1764.	3.7	133
7	Effect of melt viscosity and surface tension of polymers on the percolation threshold of conductive-particle-filled polymeric composites. <i>Journal of Macromolecular Science - Physics</i> , 1986, 25, 171-184.	1.0	129
8	Effect of reducible properties of temperature, rate of strain, and filler content on the tensile yield stress of nylon 6 composites filled with ultrafine particles. <i>Journal of Macromolecular Science - Physics</i> , 1983, 22, 601-618.	1.0	127
9	Entropy Penalty-Induced Self-Assembly in Carbon Black or Carbon Fiber Filled Polymer Blends. <i>Macromolecules</i> , 2002, 35, 945-951.	4.8	126
10	Morphology and electrical conductivity of injection-molded polypropylene/carbon black composites with addition of high-density polyethylene. <i>Polymer</i> , 2006, 47, 3599-3608.	3.8	126
11	Temperature and time dependence of conductive network formation: Dynamic percolation and percolation time. <i>Polymer</i> , 2006, 47, 466-473.	3.8	122
12	A delay of percolation time in carbon-black-filled conductive polymer composites. <i>Journal of Applied Physics</i> , 2000, 88, 1480-1487.	2.5	105
13	Dynamic mechanical properties of polypropylene composites filled with ultrafine particles. <i>Journal of Applied Polymer Science</i> , 1984, 29, 1523-1530.	2.6	99
14	A novel composite polymer electrolyte: Effect of mesoporous SiO ₂ on ionic conduction in poly(ethylene oxide)-LiCF ₃ SO ₃ complex. <i>Journal of Power Sources</i> , 2005, 146, 402-406.	7.8	97
15	Carbon Black as a Self-Diagnosing Probe To Trace Polymer Dynamics in Highly Filled Compositions. <i>Macromolecules</i> , 2002, 35, 1708-1713.	4.8	96
16	Proton conduction in Nafion composite membranes filled with mesoporous silica. <i>Journal of Power Sources</i> , 2007, 171, 530-534.	7.8	96
17	Percolation Concept: Polymer-Filler Gel Formation, Electrical Conductivity and Dynamic Electrical Properties of Carbon-Black-Filled Rubbers. <i>Polymer Journal</i> , 1996, 28, 121-126.	2.7	94
18	Miscibility and hydrolytic degradation in alkaline solution of poly(<i>l</i> -lactide) and poly(methyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62 Td	3.8	93

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19	Morphology and electrical properties of short carbon fiber-filled polymer blends: High-density polyethylene/poly(methyl methacrylate). <i>Journal of Applied Polymer Science</i> , 1998, 69, 1813-1819.	2.6	89
20	Effect of Interfacial Free Energy on the Heterogeneous Distribution of Oxidized Carbon Black in Polymer Blends.. <i>Polymer Journal</i> , 1992, 24, 415-420.	2.7	65
21	A Self-Assembled Electric Conductive Network in Short Carbon Fiber Filled Poly(methyl methacrylate) Composites with Selective Adsorption of Polyethylene. <i>Macromolecules</i> , 1999, 32, 3534-3536.	4.8	62
22	Electrical properties of epoxy resin filled with carbon fibers. <i>Journal of Materials Science</i> , 1999, 34, 5589-5592.	3.7	58
23	Relationship between electrical resistivity and particle dispersion state for carbon black filled poly(ethylene-co-vinyl acetate)/poly(L-lactic acid) blend. <i>Colloid and Polymer Science</i> , 2005, 284, 134-141.	2.1	50
24	Guest-Induced Crystal-to-Crystal Transitions of Poly(L-lactide) Complexes. <i>Journal of Physical Chemistry B</i> , 2013, 117, 385-397.	2.6	50
25	Effect of interfacial energy and viscosity on percolation time of carbon black-filled poly(methyl Tj ETQq1 1 0.784314 rgBT /Oyerlock 10 1.0 45	1.0	45
26	Positive Temperature Coefficient Effect of Epoxy Resin Filled with Short Carbon Fibers. <i>Polymer Journal</i> , 1998, 30, 381-387.	2.7	42
27	An approach to one-dimensional conductive polymer composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 184-189.	2.1	40
28	Effect of oxidized carbon black on the mechanical properties and molecular motions of natural rubber studied by pulse NMR. <i>Journal of Applied Polymer Science</i> , 1991, 43, 1253-1257.	2.6	39
29	Effect of ultrafine particles on the elastic properties of oriented low-density polyethylene composites. <i>Journal of Applied Polymer Science</i> , 1982, 27, 3059-3066.	2.6	37
30	Effect of Supercritical Carbon Dioxide Processing on Ionic Association and Conduction in a Crystalline Poly(ethylene oxide)~LiCF3SO3Complex. <i>Macromolecules</i> , 2003, 36, 8766-8772.	4.8	37
31	Crystal structures of poly(l-lactide)~CO2 complex and its emptied form. <i>Polymer</i> , 2012, 53, 4262-4271.	3.8	37
32	Damping performance of polymer blend/organic filler hybrid materials with selective compatibility. <i>Materials Letters</i> , 2002, 52, 96-99.	2.6	35
33	The effect of high-pressure carbon dioxide treatment on the crystallization behavior and mechanical properties of poly(l-lactic acid)/poly(methyl methacrylate) blends. <i>Polymer</i> , 2006, 47, 3954-3960.	3.8	35
34	Title is missing!. <i>Die Makromolekulare Chemie Rapid Communications</i> , 1991, 12, 657-661.	1.1	34
35	Effect of the soft segment on the fatigue behavior of segmented polyurethanes. <i>European Polymer Journal</i> , 2000, 36, 2039-2050.	5.4	31
36	A study on correlation between physical properties and interfacial characteristics in highly loaded graphite-polymer composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 2568-2577.	2.1	31

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37	Fast Ionic Conduction in PEO-Based Composite Electrolyte Filled with Ionic Liquid-Modified Mesoporous Silica. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, A22.	2.2	31
38	Conductive network formation and electrical properties of poly(vinylidene fluoride)/multiwalled carbon nanotube composites: Percolation and dynamic percolation. <i>Journal of Applied Polymer Science</i> , 2009, 114, 1405-1411.	2.6	29
39	Selective location of the filler and double percolation of Ketjenblack filled High Density Polyethylene/Isotactic Polypropylene blends. <i>Composite Interfaces</i> , 1998, 6, 227-236.	2.3	28
40	Characterization of Higher-Order Structure of Poly(ethylene-2,6-naphthalate) Treated with Supercritical Carbon Dioxide. <i>Macromolecules</i> , 2005, 38, 6544-6550.	4.8	27
41	Electrical characteristics of fluorinated carbon black-filled poly(vinylidene fluoride) composites. <i>Journal of Applied Polymer Science</i> , 2001, 80, 1063-1070.	2.6	26
42	Dynamics of electric field induced particle alignment in nonpolar polymer matrix. <i>Applied Physics Letters</i> , 2003, 83, 3791-3793.	3.3	26
43	Miscibility and hydrolytic degradation in alkaline solution of poly(L-lactide) and poly(p-vinyl phenol) blends. <i>Polymer Degradation and Stability</i> , 2007, 92, 1626-1631.	5.8	26
44	Ion-conductive properties of mesoporous silica-filled composite polymer electrolytes. <i>Electrochimica Acta</i> , 2005, 50, 3949-3954.	5.2	22
45	Formation and structure of fine multi-particle layered organo-modified zirconium dioxides fabricated by Langmuir-Blodgett technique. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 446, 109-117.	4.7	22
46	Title is missing!. <i>Kobunshi Ronbunshu</i> , 1983, 40, 203-210.	0.2	21
47	Suspension of layered particles: an optimum electrorheological fluid for d.c. applications. <i>Rheologica Acta</i> , 1999, 38, 478-483.	2.4	21
48	Cure and reaction kinetics of an anhydride-cured epoxy resin catalyzed by N-benzylpyrazinium salts using near-infrared spectroscopy. <i>Polymer Engineering and Science</i> , 2000, 40, 2569-2576.	3.1	21
49	Effect of drawing on the melting point and heat of fusion of polyethylene. <i>Journal of Polymer Science, Polymer Physics Edition</i> , 1977, 15, 837-846.	1.0	19
50	Electrical conductivity of short carbon fiber filled HDPE/PMMA blends: effect of molding temperature and time. <i>Composite Interfaces</i> , 1998, 6, 287-296.	2.3	18
51	Enhanced electrochromic switching speed and electrochemical stability of conducting polymer film on an ionic liquid functionalized ITO electrode. <i>New Journal of Chemistry</i> , 2015, 39, 5329-5335.	2.8	18
52	Physical Properties of Polyurethane Blend Dope-Coated Fabrics. <i>Textile Research Journal</i> , 1997, 67, 601-608.	2.2	15
53	Dielectric relaxation behavior of poly(methyl methacrylate) under high-pressure carbon dioxide. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 2951-2962.	2.1	15
54	Relationship between rigid amorphous fraction and structural changes of poly(phenylene sulfide) on thermal treatment. <i>Journal of Macromolecular Science - Physics</i> , 1997, 36, 381-394.	1.0	14

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55	Improvement of the ionic conductivity for amorphous polyether electrolytes using supercritical CO ₂ treatment technology. <i>Electrochimica Acta</i> , 2003, 48, 1991-1995.	5.2	14
56	Improvement of the ionic conductivity for PEO-LiCF ₃ SO ₃ complex by supercritical CO ₂ treatment. <i>Materials Letters</i> , 2002, 57, 777-780.	2.6	13
57	Time-Resolved FTIR Study of Crystallization Behavior of Melt-Crystallized Poly(Phenylene Sulfide). <i>Journal of Macromolecular Science - Physics</i> , 2000, 39, 279-296.	1.0	12
58	Relationship between electric current and matrix modulus in electrorheological elastomers. <i>Journal of Electrostatics</i> , 2001, 50, 303-312.	1.9	12
59	Structure and properties of highly stereoregular isotactic poly(methyl methacrylate) and syndiotactic poly(methyl methacrylate) blends treated with supercritical CO ₂ . <i>Polymer</i> , 2007, 48, 5116-5124.	3.8	12
60	Utilization of polymer degradation to modify electrical properties of poly(L-lactide)/poly(methyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54	7.8	12
61	In situ study of ionic conductivity for polyether-LiCF ₃ SO ₃ electrolytes with subcritical and supercritical CO ₂ . <i>Polymer</i> , 2003, 44, 4769-4772.	3.8	11
62	AC complex impedance measurement of comb-like type polyether electrolytes under high-pressure carbon dioxide. <i>Electrochimica Acta</i> , 2003, 48, 4069-4075.	5.2	11
63	Thermoluminescence and NMR studies of segmented poly(urethane ureas) in relation to phase separation and deformation. <i>Macromolecules</i> , 1988, 21, 3424-3430.	4.8	9
64	Mechanical Dampers Using Piezoelectric Composites. <i>Journal of the Ceramic Society of Japan</i> , 1991, 99, 1135-1137.	1.3	9
65	Ionic conductivity studies of poly(ethylene oxide)-lithium salt electrolytes in high-pressure carbon dioxide. <i>Polymer</i> , 2005, 46, 8113-8118.	3.8	9
66	Resistivity control in the semiconductive region for carbon-black-filled polymer composites. <i>Colloid and Polymer Science</i> , 2005, 283, 367-374.	2.1	9
67	Structural Studies of Biodegradable Polymer and Fractal. (Part 3). Fractal and Degradation Process of Biodegradable Polyester Blends.. <i>Journal of Fiber Science and Technology</i> , 1998, 54, 277-284.	0.0	9
68	Characterization of fatigue of segmented polyurethane by using thermoluminescence and pulse NMR. <i>Journal of Macromolecular Science - Physics</i> , 1989, 28, 309-327.	1.0	8
69	Relation between Ionic Conductivity and Solubility of CO ₂ in Pressurized Solid Polymer Electrolytes. <i>Macromolecules</i> , 2007, 40, 3348-3354.	4.8	8
70	Poly(ethylene oxide)-Based Composite Electrolytes Filled with Periodic Mesoporous Silica for Solid State Ionics. <i>E-Journal of Soft Materials</i> , 2005, 1, 14-19.	2.0	7
71	Specific ionic conduction in poly[oligo (oxyethylene glycol) methacrylate] (PMEO)-Li salt complexes under high-pressure CO ₂ . <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2005, 43, 3151-3158.	2.1	6
72	Effect of Humidity on Ionic Conductivity of NBR/Polyether Electrolyte Blends with Microscale Sea-Island Phase Separation. <i>Nippon Gomu Kyokaishi</i> , 2009, 82, 499-506.	0.0	6

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73	Mechanical properties of oriented polyvinylchloride composites filled with ultrafine particles. Colloid and Polymer Science, 1984, 262, 103-109.	2.1	5
74	Effect of molecular weight distribution on the structure and mechanical properties of ultradrawn, ultrahigh-molecular-weight polyethylene cast from solution. I. Thermoluminescence and NMR. Journal of Polymer Science, Part B: Polymer Physics, 1989, 27, 2427-2440.	2.1	5
75	Morphologies and Properties of Injection Molded Specimens of Polypropylene/High Density Polyethylene/Carbon Black Composites.. Kobunshi Ronbunshu, 1996, 53, 745-753.	0.2	5
76	Bioactivity and mechanical properties of CaSiO ₃ /high-density polyethylene (HDPE) composites prepared by a new surface loading method of CaSiO ₃ powder. Materials Research Bulletin, 2009, 44, 298-305.	5.2	5
77	Estimation of Surface Free Energy of Oxidized Carbon Black.. Nippon Kagaku Kaishi / Chemical Society of Japan - Chemistry and Industrial Chemistry Journal, 1991, 1991, 1672-1676.	0.1	4
78	Thermal Behavior of Rigid Amorphous Phase in Poly(ethylene naphthalene-2,6-dicarboxylate) Film.. Journal of Fiber Science and Technology, 1996, 52, 631-638.	0.0	4
79	Dispersion of fillers in particulated-filled polymers.. Nippon Gomu Kyokaishi, 1989, 62, 438-444.	0.0	3
80	Electrical and dynamic mechanical behavior of BaTiO ₃ /VGCF/LDPE composite. Composite Interfaces, 2000, 7, 411-424.	2.3	3
81	Structural Studies of Biodegradable Polymer with Fractal (Part 2). Fractal and Structure of Poly(L-Lactic Acid) in Fragmentation.. Journal of Fiber Science and Technology, 1997, 53, 265-271.	0.0	3
82	Structural Studies of Biodegradable Polymer and Fractal. (Part 4). Fine Structure and Degradation Behavior of Poly(L-lactic acid) and Poly(butylene succinate) Blends.. Journal of Fiber Science and Technology, 2000, 56, 363-370.	0.0	3
83	Damping Behavior of Chlorinated Polyethylene/N,N'-Dicyclohexyl-2-benzothiazolylsulfenamide Organic Hybrid.. Journal of Fiber Science and Technology, 2000, 56, 443-448.	0.0	3
84	Mechanical properties of drawn poly(methyl methacrylate) filled with ultrafine particles. Polymer Composites, 1986, 7, 36-41.	4.6	2
85	Studies of Relationships between Elastic Modulus and Damping Performance in Piezoelectric Damping Composites.. Nippon Gomu Kyokaishi, 1994, 67, 564-569.	0.0	2
86	Sound and Vibration Damping Polymers Free from Mass Law.. Kobunshi, 1997, 46, 116-119.	0.0	2
87	Properties of Acrylic Rubber/Organic Filler Hybrid Damping Materials. Nippon Gomu Kyokaishi, 2001, 74, 35-40.	0.0	2
88	Effect of reaction kinetics of polymer electrolyte on the ion-conductive behavior for poly(oligo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14	2.6	2
89	Electrical and Mechanical Properties of Surface Fluorinated Carbon Black Filled Polymer Composite. Nippon Gomu Kyokaishi, 2003, 76, 375-380.	0.0	2
90	Viscoelasticity and morphology of an organic hybrid of chlorinated polyethylene and N,N'-dicyclohexyl-2-benzothiazolyl sulfenamide. Composite Interfaces, 2005, 12, 637-653.	2.3	2

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91	Seikei-Kakou, 2004, 16, 762-767.	0.0	2
92	Biocompatibility of CaSiO ₃ /High-Density Polyethylene Composites Prepared by Hot-Pressing. Key Engineering Materials, 2006, 309-311, 1161-1164.	0.4	1
93	Crystallization Behavior of Chlorinated Polyethylene/N,N'-Dicyclohexyl-2-benzothiazolylsulfenamide Organic Hybrid I.. Journal of Fiber Science and Technology, 2001, 57, 47-53.	0.0	1
94	The Effect of Supercritical CO ₂ on the Macromolecules Parallel Conformation and Its Relation to the Electrical Conductivity and Dielectric Behavior of Epichlorohydrin Terpolymer. Journal of Macromolecular Science - Physics, 2003, 42, 1021-1038.	1.0	0
95	Low-frequency sound absorption of organic hybrid comprised of chlorinated polyethylene andN,N'-dicyclohexyl-2-benzothiazolyl sulfenamide. Journal of Applied Polymer Science, 2006, 99, 2878-2884.	2.6	0
96	THE MOLECULAR ORIENTATION OF AMORPHOUS CHAINS IN POLYMER FILMS FROM FLUORESCENCE POLARIZATION. Journal of Fiber Science and Technology, 1974, 30, T566-T570.	0.0	0
97	Studies on Geometry Using Fiber and String Shape Model. (Part 1). Plane-Filling Curves Using String-systems and Their Applications to Textile Goods.. Journal of Fiber Science and Technology, 1995, 51, 313-322.	0.0	0
98	Studies on Fiber and Geometry Using a String Shape Model (Part 3). Analysis of the Relationship between Patterns of Textiles and Information by means of Fractal Images and Dimensions.. Journal of Fiber Science and Technology, 1997, 53, 272-280.	0.0	0