

Evangelos Manias

List of Publications by Year in descending order

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81743

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times ranked

7303
citing authors

#	ARTICLE	IF	CITATIONS
1	Flammability Properties of Polymer/Layered-Silicate Nanocomposites. Polypropylene and Polystyrene Nanocomposites. Chemistry of Materials, 2000, 12, 1866-1873.	3.2	1,451
2	Polypropylene/Montmorillonite Nanocomposites. Review of the Synthetic Routes and Materials Properties. Chemistry of Materials, 2001, 13, 3516-3523.	3.2	862
3	Structure and Properties of Poly(vinyl alcohol)/Na+Montmorillonite Nanocomposites. Chemistry of Materials, 2000, 12, 2943-2949.	3.2	741
4	Nested self-similar wrinkling patterns in skins. Nature Materials, 2005, 4, 293-297.	13.3	710
5	New Biomedical Poly(urethane urea)/Layered Silicate Nanocomposites. Macromolecules, 2001, 34, 337-339.	2.2	327
6	Nanoscale-Confinement Effects on Local Dynamics. Physical Review Letters, 2000, 84, 915-918.	2.9	286
7	Molecular dynamics simulations of organically modified layered silicates. Journal of Chemical Physics, 1998, 108, 7410-7415.	1.2	214
8	Crystallization Behavior of Poly(ethylene oxide) in the Presence of Na+Montmorillonite Fillers. Chemistry of Materials, 2003, 15, 844-849.	3.2	212
9	Computer Simulation Studies of PEO/Layer Silicate Nanocomposites. Chemistry of Materials, 2000, 12, 2161-2167.	3.2	211
10	Effect of MgAl-layered double hydroxide exchanged with linear alkyl carboxylates on fire-retardancy of PMMA and PS. Journal of Materials Chemistry, 2008, 18, 4827.	6.7	204
11	The thermal degradation of poly(methyl methacrylate) nanocomposites with montmorillonite, layered double hydroxides and carbon nanotubes. Polymers for Advanced Technologies, 2006, 17, 272-280.	1.6	192
12	Stiffer by design. Nature Materials, 2007, 6, 9-11.	13.3	179
13	Intercalation Kinetics of Long Polymers in 2 nm Confinements. Macromolecules, 2000, 33, 7955-7966.	2.2	162
14	Material properties of nanoclay PVC composites. Polymer, 2009, 50, 1857-1867.	1.8	140
15	The influence of carbon nanotubes, organically modified montmorillonites and layered double hydroxides on the thermal degradation and fire retardancy of polyethylene, ethylene-vinyl acetate copolymer and polystyrene. Polymer, 2007, 48, 6532-6545.	1.8	139
16	Exfoliated PP/Clay Nanocomposites Using Ammonium-Terminated PP as the Organic Modification for Montmorillonite. Macromolecules, 2003, 36, 8919-8922.	2.2	137
17	Polymer nanocomposites using zinc aluminum and magnesium aluminum oleate layered double hydroxides: Effects of LDH divalent metals on dispersion, thermal, mechanical and fire performance in various polymers. Polymer, 2009, 50, 3564-3574.	1.8	130
18	Dynamical heterogeneity in nanoconfined poly(styrene) chains. Journal of Chemical Physics, 2000, 112, 2945-2951.	1.2	125

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19	Dielectric Relaxation in Dimethyl Sulfoxide/Water Mixtures Studied by Microwave Dielectric Relaxation Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2009, 113, 12207-12214.	1.1	121
20	AFM of Poly(vinyl alcohol) Crystals Next to an Inorganic Surface. <i>Macromolecules</i> , 2001, 34, 8475-8482.	2.2	118
21	Inhomogeneities in Sheared Ultrathin Lubricating Films. <i>Langmuir</i> , 1996, 12, 4587-4593.	1.6	86
22	Melt-processable syndiotactic polystyrene/montmorillonite nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 3173-3187.	2.4	81
23	Low permeability biomedical polyurethane nanocomposites. <i>Journal of Biomedical Materials Research Part B</i> , 2003, 64A, 114-119.	3.0	80
24	Computer Simulation of PEO/Layered-Silicate Nanocomposites: 2. Lithium Dynamics in PEO/Li+Montmorillonite Intercalates. <i>Chemistry of Materials</i> , 2002, 14, 2171-2175.	3.2	79
25	Functionalized Syndiotactic Polystyrene Polymers Prepared by the Combination of Metallocene Catalyst and Borane Comonomer. <i>Macromolecules</i> , 2002, 35, 3439-3447.	2.2	73
26	Tailored Nanocomposites of Polypropylene with Layered Silicates. <i>Macromolecules</i> , 2009, 42, 3795-3803.	2.2	73
27	Studies of Bitumen-Silica and Oil-Silica Interactions in Ionic Liquids. <i>Energy & Fuels</i> , 2011, 25, 293-299.	2.5	73
28	Dynamics of poly(ethylene oxide) in nanoscale confinements: A computer simulations perspective. <i>Journal of Chemical Physics</i> , 2003, 118, 3421-3429.	1.2	69
29	On the nature of shear thinning in nanoscopically confined films. <i>Europhysics Letters</i> , 1996, 33, 371-376.	0.7	68
30	Atomistic simulation of lipid and Dil dynamics in membrane bilayers under tension. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 1368-1378.	1.3	62
31	Simulation insights on the structure of nanoscopically confined poly(ethylene oxide). <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003, 41, 3285-3298.	2.4	61
32	Rapid formation of soft hydrophilic silicone elastomer surfaces. <i>Polymer</i> , 2005, 46, 9329-9341.	1.8	60
33	Relaxation of polymers in 2 nm slit-pores: confinement induced segmental dynamics and suppression of the glass transition. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2001, 187-188, 509-521.	2.3	55
34	High Breakdown Strength Polymer Nanocomposites Based on the Synergy of Nanofiller Orientation and Crystal Orientation for Insulation and Dielectric Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 3520-3530.	2.4	54
35	Stick and Slip Behaviour of Confined Oligomer Melts under Shear. A Molecular-Dynamics Study. <i>Europhysics Letters</i> , 1993, 24, 99-104.	0.7	51
36	Improving Electrical Breakdown Strength of Polymer Nanocomposites by Tailoring Hybrid-Filler Structure for High-Voltage Dielectric Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 4401-4407.	2.4	47

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37	Synthesis of new amphiphilic diblock copolymers containing poly(ethylene oxide) and poly(?-olefin). Journal of Polymer Science Part A, 2002, 40, 3416-3425.	2.5	43
38	Polymer nanocomposites using zinc aluminum and magnesium aluminum oleate layered double hydroxides: Effects of the polymeric compatibilizer and of composition on the thermal and fire properties of PP/LDH nanocomposites. Polymer Degradation and Stability, 2009, 94, 2042-2054.	2.7	43
39	Water-soluble polymers with tunable temperature sensitivity: Solution behavior. Journal of Polymer Science, Part B: Polymer Physics, 2002, 40, 2339-2342.	2.4	40
40	Effect of crystal orientation and nanofiller alignment on dielectric breakdown of polyethylene/montmorillonite nanocomposites. Applied Physics Letters, 2017, 111, .	1.5	40
41	Rheology of Confined Polymer Melts under Shear Flow: Strong Adsorption Limit. Macromolecules, 1995, 28, 1511-1515.	2.2	39
42	Nonlinear Rheology of Polymer Melts under Shear Flow. Macromolecules, 1995, 28, 3898-3900.	2.2	39
43	The origins of fast segmental dynamics in 2 nm thin confined polymer films. European Physical Journal E, 2002, 8, 193-199.	0.7	37
44	Effect of shear on the desorption of oligomers in nanoscopically confined films. Journal of Chemical Physics, 1994, 101, 1721-1724.	1.2	34
45	Adsorption-desorption kinetics in nanoscopically confined oligomer films under shear. Molecular Physics, 1995, 85, 1017-1032.	0.8	34
46	Segmental dynamics of polymers in nanoscopic confinements, as probed by simulations of polymer/layered-silicate nanocomposites. European Physical Journal E, 2003, 12, 159-165.	0.7	34
47	Solid-State Microstructure of Poly(l-lactide) and l-Lactide/meso-Lactide Random Copolymers by Atomic Force Microscopy (AFM). Biomacromolecules, 2003, 4, 1203-1213.	2.6	34
48	EVA-layered double hydroxide (nano)composites: Mechanism of fire retardancy. Polymer Degradation and Stability, 2011, 96, 301-313.	2.7	33
49	Polymeric micromechanical components with tunable stiffness. Applied Physics Letters, 2001, 79, 1700-1702.	1.5	32
50	Two-Port Transmission Line Technique for Dielectric Property Characterization of Polymer Electrolyte Membranes. Journal of Physical Chemistry B, 2009, 113, 13551-13559.	1.2	32
51	Polarization Mechanism Underlying Strongly Enhanced Dielectric Permittivity in Polymer Composites with Conductive Fillers. Journal of Physical Chemistry C, 2022, 126, 7596-7604.	1.5	30
52	Thermodynamics of Polymer Blends. , 2014, , 171-289.		29
53	Atomic Force Microscopy and Real Atomic Resolution. Simple Computer Simulations. Europhysics Letters, 1994, 26, 103-107.	0.7	27
54	Increased Dielectric Breakdown Strength of Polyolefin Nanocomposites via Nanofiller Alignment. MRS Advances, 2017, 2, 357-362.	0.5	27

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55	Interfacial effects on the dielectric properties of elastomer/carbon-black/ceramic composites. MRS Advances, 2021, 6, 247-251.	0.5	23
56	Micropatterning of Conducting Polymer Thin Films on Reactive Self-assembled Monolayers. Chemistry of Materials, 2003, 15, 2699-2701.	3.2	22
57	A SANS Study of Organoclay Dispersions. International Journal of Thermophysics, 2001, 22, 1435-1448.	1.0	21
58	Phase behavior of temperature-responsive polymers with tunable LCST: An equation-of-state approach. Fluid Phase Equilibria, 2007, 261, 69-78.	1.4	21
59	Tailored Polyethylene Nanocomposite Sealants: Broad-Range Peelable Heat-Seals Through Designed Filler/Polymer Interfaces. Journal of Adhesion Science and Technology, 2009, 23, 709-737.	1.4	18
60	Nonlinear dynamics of melted polymer layers. Macromolecular Symposia, 1997, 121, 175-186.	0.4	17
61	Structured Polyethylene Nanocomposites: Effects of Crystal Orientation and Nanofiller Alignment on High Field Dielectric Properties. MRS Advances, 2017, 2, 363-368.	0.5	17
62	SiOC glass modified by montmorillonite clay. Ceramics International, 2006, 32, 679-686.	2.3	15
63	Polyethylene Nanocomposite Heat-Resistant Sealants with a Versatile Peelable Character. Macromolecular Rapid Communications, 2009, 30, 17-23.	2.0	15
64	Effect of cation exchange capacity on the structure and dynamics of poly(ethylene oxide) in Li ⁺ montmorillonite nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2005, 43, 3460-3477.	2.4	13
65	Hollow microspheres and aqueous phase behavior of pH-responsive poly(methyl methacrylate) nanocomposites. Letters, 2009, 63, 1144-1147.	1.3	13
66	Dielectric Relaxation in Dimethyl Sulfoxide/Water Mixtures. ECS Transactions, 2010, 28, 11-21.	0.3	12
67	Dielectric Properties of Polymer Electrolyte Membranes Measured by Two-Port Transmission Line Technique. ECS Transactions, 2010, 28, 95-105.	0.3	9
68	Direct Observation of Fracture Mechanisms in Polymer-Layered Silicate Nanocomposites. Materials Research Society Symposia Proceedings, 1996, 457, 495.	0.1	7
69	Dynamics of Amphiphilic Surfactants Confined in Montmorillonite Slits with Different Cation Exchange Capacities. Journal of Physical Chemistry B, 2013, 117, 13667-13678.	1.2	6
70	Interfacial Effects on the Dielectric Properties of Elastomer Composites and Nanocomposites. Advances in Dielectrics, 2022, , 225-249.	1.2	6
71	State of Water in Perfluorosulfonic Ionomer (Nafion) Proton Exchange Membranes. ECS Transactions, 2010, 28, 81-89.	0.3	5
72	Poly(ethylene terephthalate) nanocomposites using nanoclays modified with thermally stable surfactants. , 2011, , 100-120.		2

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73	Effect of nm-Thin Inorganic Layered Fillers on the Crystallization of Polymer Nanocomposites. Materials Research Society Symposia Proceedings, 2003, 791, 1.	0.1	2
74	The Nature of Nanometer-Thick Lubricating Films. Materials Research Society Symposia Proceedings, 1998, 522, 165.	0.1	1
75	State of Water in Nafion 117 Proton Exchange Membranes Studied by Dielectric Relaxation Spectroscopy. Materials Research Society Symposia Proceedings, 2006, 972, 1.	0.1	1
76	Polymer/inorganic nanocomposites with tailored hierarchical structure as advanced dielectric materials. Materials Research Society Symposia Proceedings, 2012, 1410, 43.	0.1	1
77	Symposium 3: Computational Methods in Chemical Engineering: Physical Chemistry. AIP Conference Proceedings, 2007, , .	0.3	0