Jaime C Grunlan

List of Publications by Year
in descending order

218	21,193	22153 59	9861 141
papers	citations	h-index	g-index

232	232	232	21759
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Two-Dimensional Nanosheets Produced by Liquid Exfoliation of Layered Materials. Science, 2011, 331, 568-571.	12.6	6,190
2	Largeâ€Scale Exfoliation of Inorganic Layered Compounds in Aqueous Surfactant Solutions. Advanced Materials, 2011, 23, 3944-3948.	21.0	1,012
3	Improved Thermoelectric Behavior of Nanotube-Filled Polymer Composites with Poly(3,4-ethylenedioxythiophene) Poly(styrenesulfonate). ACS Nano, 2010, 4, 513-523.	14.6	547
4	Light-Weight Flexible Carbon Nanotube Based Organic Composites with Large Thermoelectric Power Factors. ACS Nano, 2011, 5, 7885-7892.	14.6	411
5	Carbonâ€Nanotubeâ€Based Thermoelectric Materials and Devices. Advanced Materials, 2018, 30, 1704386.	21.0	411
6	Super Gas Barrier and Selectivity of Graphene Oxideâ€Polymer Multilayer Thin Films. Advanced Materials, 2013, 25, 503-508.	21.0	400
7	Flame Retardant Behavior of Polyelectrolyteâ^'Clay Thin Film Assemblies on Cotton Fabric. ACS Nano, 2010, 4, 3325-3337.	14.6	394
8	Thermoelectric Behavior of Segregated-Network Polymer Nanocomposites. Nano Letters, 2008, 8, 4428-4432.	9.1	384
9	Water-Based Single-Walled-Nanotube-Filled Polymer Composite with an Exceptionally Low Percolation Threshold. Advanced Materials, 2004, 16, 150-153.	21.0	372
10	Nano/Microâ€Manufacturing of Bioinspired Materials: a Review of Methods to Mimic Natural Structures. Advanced Materials, 2016, 28, 6292-6321.	21.0	332
11	Clayâ€“Chitosan Nanobrick Walls: Completely Renewable Gas Barrier and Flame-Retardant Nanocoatings. ACS Applied Materials & Interfaces, 2012, 4, 1643-1649.	8.0	327
12	Flame-retardant surface treatments. Nature Reviews Materials, 2020, 5, 259-275.	48.7	325
13	Intumescent Multilayer Nanocoating, Made with Renewable Polyelectrolytes, for Flame-Retardant Cotton. Biomacromolecules, 2012, 13, 2843-2848.	5.4	318
14	Intumescent Allâ€Polymer Multilayer Nanocoating Capable of Extinguishing Flame on Fabric. Advanced Materials, 2011, 23, 3926-3931.	21.0	311
15	Super Gas Barrier of Transparent Polymerâ^'Clay Multilayer Ultrathin Films. Nano Letters, 2010, 10, 4970-4974.	9.1	299
16	Clay Assisted Dispersion of Carbon Nanotubes in Conductive Epoxy Nanocomposites. Advanced Functional Materials, 2007, 17, 2343-2348.	14.9	276
17	Interpretations of Indentation Size Effects. Journal of Applied Mechanics, Transactions ASME, 2002, 69, 433-442.	2.2	243
18	Outstanding Low Temperature Thermoelectric Power Factor from Completely Organic Thin Films Enabled by Multidimensional Conjugated Nanomaterials. Advanced Energy Materials, 2016, 6, 1502168.	19.5	239

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19	Layer-by-layer assembly of silica-based flame retardant thin film on PET fabric. Polymer Degradation and Stability, 2011, 96, 745-750.	5.8	215
20	Completely Organic Multilayer Thin Film with Thermoelectric Power Factor Rivaling Inorganic Tellurides. Advanced Materials, 2015, 27, 2996-3001.	21.0	213
21	Transparent Clayâ^'Polymer Nano Brick Wall Assemblies with Tailorable Oxygen Barrier. ACS Applied Materials & Interfaces, 2010, 2, 312-320.	8.0	210
22	Super Gas Barrier of All-Polymer Multilayer Thin Films. Macromolecules, 2011, 44, 1450-1459.	4.8	193
23	Polyelectrolyte/Nanosilicate Thin-Film Assemblies: Influence of pH on Growth, Mechanical Behavior, and Flammability. ACS Applied Materials & Interfaces, 2009, 1, 2338-2347.	8.0	168
24	Layer-by-layer assembly of thin film oxygen barrier. Thin Solid Films, 2008, 516, 4819-4825.	1.8	162
25	A review of flame retardant nanocoatings prepared using layer-by-layer assembly of polyelectrolytes. Journal of Materials Science, 2017, 52, 12923-12959.	3.7	156
26	Environmentally Benign Halloysite Nanotube Multilayer Assembly Significantly Reduces Polyurethane Flammability. Advanced Functional Materials, 2018, 28, 1703289.	14.9	154
27	Tunable Single-Walled Carbon Nanotube Microstructure in the Liquid and Solid States Using Poly(acrylic acid). Nano Letters, 2006, 6, 911-915.	9.1	144
28	Effects of carbon nanotube fillers on the curing processes of epoxy resin-based composites. Journal of Applied Polymer Science, 2006, 102, 5248-5254.	2.6	141
29	Antimicrobial Behavior of Polyelectrolyte Multilayer Films Containing Cetrimide and Silver. Biomacromolecules, 2005, 6, 1149-1153.	5.4	134
30	Exceptionally Flame Retardant Sulfur-Based Multilayer Nanocoating for Polyurethane Prepared from Aqueous Polyelectrolyte Solutions. ACS Macro Letters, 2013, 2, 361-365.	4.8	131
31	Surface Coating for Flame-Retardant Behavior of Cotton Fabric Using a Continuous Layer-by-Layer Process. Industrial & Engineering Chemistry Research, 2014, 53, 3805-3812.	3.7	129
32	Development of layer-by-layer assembled carbon nanofiber-filled coatings to reduce polyurethane foam flammability. Polymer, 2011, 52, 2847-2855.	3.8	125
33	Lowering the percolation threshold of conductive composites using particulate polymer microstructure. Journal of Applied Polymer Science, 2001, 80, 692-705.	2.6	118
34	Effect of clay concentration on the oxygen permeability and optical properties of a modified poly(vinyl alcohol). Journal of Applied Polymer Science, 2004, 93, 1102-1109.	2.6	117
35	Recent Advances in Gas Barrier Thin Films via Layer-by-Layer Assembly of Polymers and Platelets. Macromolecular Rapid Communications, 2015, 36, 866-879.	3.9	113
36	The influence of synergistic stabilization of carbon black and clay on the electrical and mechanical properties of epoxy composites. Carbon, 2009, 47, 3128-3136.	10.3	112

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37	Thermoelectric behavior of organic thin film nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 119-123.	2.1	111
38	Growth and fire resistance of colloidal silica-polyelectrolyte thin film assemblies. Journal of Colloid and Interface Science, 2011, 356, 69-77.	9.4	109
39	Growth and fire protection behavior of POSS-based multilayer thin films. Journal of Materials Chemistry, 2011, 21, 3060.	6.7	105
40	Stable n-type thermoelectric multilayer thin films with high power factor from carbonaceous nanofillers. Nano Energy, 2016, 28, 426-432.	16.0	96
41	Increasing the thermoelectric power factor of polymer composites using a semiconducting stabilizer for carbon nanotubes. Carbon, 2012, 50, 885-895.	10.3	95
42	Influence of Clay Concentration on the Gas Barrier of Clayâ€“Polymer Nanobrick Wall Thin Film Assemblies. Langmuir, 2011, 27, 12106-12114.	3.5	92
43	Flame-Retardant Paper from Wood Fibers Functionalized via Layer-by-Layer Assembly. ACS Applied Materials & Interfaces, 2015, 7, 23750-23759.	8.0	92
44	Inorganic Nanoparticle Thin Film that Suppresses Flammability of Polyurethane with only a Single Electrostatically-Assembled Bilayer. ACS Applied Materials & Interfaces, 2014, 6, 16903-16908.	8.0	82
45	Extreme Heat Shielding of Clay/Chitosan Nanobrick Wall on Flexible Foam. ACS Applied Materials & Interfaces, 2018, 10, 31686-31696.	8.0	81
46	Thermal and Mechanical Behavior of Carbon-Nanotube-Filled Latex. Macromolecular Materials and Engineering, 2006, 291, 1035-1043.	3.6	80
47	Antimicrobial Behavior of Polyelectrolyteâ^'Surfactant Thin Film Assemblies. Langmuir, 2009, 25, 10322-10328.	3.5	79
48	Water-based chitosan/melamine polyphosphate multilayer nanocoating that extinguishes fire on polyester-cotton fabric. Carbohydrate Polymers, 2015, 130, 227-232.	10.2	79
49	Iron-containing, high aspect ratio clay as nanoarmor that imparts substantial thermal/flame protection to polyurethane with a single electrostatically-deposited bilayer. Journal of Materials Chemistry A, 2014, 2, 17609-17617.	10.3	74
50	Electrical and mechanical behavior of carbon black-filled poly(vinyl acetate) latex-based composites. Polymer Engineering and Science, 2001, 41, 1947-1962.	3.1	72
51	Temperature Controlled Dispersion of Carbon Nanotubes in Water with Pyrene-Functionalized Poly(N-cyclopropylacrylamide). Journal of the American Chemical Society, 2009, 131, 13598-13599.	13.7	71
52	High Modulus, Thermally Stable, and Self-Extinguishing Aramid Nanofiber Separators. ACS Applied Materials & Interfaces, 2020, 12, 25756-25766.	8.0	71
53	Phosphorous-filled nanobrick wall multilayer thin film eliminates polyurethane melt dripping and reduces heat release associated with fire. Polymer Degradation and Stability, 2013, 98, 2645-2652.	5.8	70
54	Comparison of Covalently and Noncovalently Functionalized Carbon Nanotubes in Epoxy. Macromolecular Rapid Communications, 2009, 30, 627-632.	3.9	69

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55	Fully Organic Nanocomposites with High Thermoelectric Power Factors by using a Dualâ€Stabilizer Preparation. Energy Technology, 2013, 1, 265-272.	3.8	66
56	Large-Scale Continuous Immersion System for Layer-by-Layer Deposition of Flame Retardant and Conductive Nanocoatings on Fabric. Industrial & Engineering Chemistry Research, 2014, 53, 6409-6416.	3.7	66
57	Polymerâ€“Graphene Oxide Quadlayer Thin-Film Assemblies with Improved Gas Barrier. Langmuir, 2015, 31, 5919-5927.	3.5	65
58	Improving oxygen barrier and reducing moisture sensitivity of weak polyelectrolyte multilayer thin films with crosslinking. RSC Advances, 2012, 2, 12355.	3.6	64
59	Improving the Gas Barrier Property of Clayâ€“Polymer Multilayer Thin Films Using Shorter Deposition Times. ACS Applied Materials & Interfaces, 2014, 6, 6040-6048.	8.0	60
60	Influence of Deposition Time on Layer-by-Layer Growth of Clay-Based Thin Films. Industrial & Engineering Chemistry Research, 2010, 49, 8501-8509.	3.7	59
61	Transparency, Gas Barrier, and Moisture Resistance of Large-Aspect-Ratio Vermiculite Nanobrick Wall Thin Films. ACS Applied Materials & Interfaces, 2012, 4, 5529-5533.	8.0	59
62	Intumescing multilayer thin film deposited on clay-based nanobrick wall to produce self-extinguishing flame retardant polyurethane. Journal of Materials Science, 2015, 50, 2451-2458.	3.7	58
63	Weak polyelectrolyte control of carbon nanotube dispersion in water. Journal of Colloid and Interface Science, 2008, 317, 346-349.	9.4	57
64	High Electrical Conductivity and Transparency in Deoxycholate-Stabilized Carbon Nanotube Thin Films. Journal of Physical Chemistry C, 2010, 114, 6325-6333.	3.1	56
65	Aluminum hydroxide multilayer assembly capable of extinguishing flame on polyurethane foam. Journal of Materials Science, 2016, 51, 375-381.	3.7	55
66	Precisely Tuning the Clay Spacing in Nanobrick Wall Gas Barrier Thin Films. Chemistry of Materials, 2013, 25, 1649-1655.	6.7	54
67	Microintumescent mechanism of flameâ€retardant waterâ€based chitosanâ€“ammonium polyphosphate multilayer nanocoating on cotton fabric. Journal of Applied Polymer Science, 2016, 133, .	2.6	51
68	High Thermoelectric Power Factor Organic Thin Films through Combination of Nanotube Multilayer Assembly and Electrochemical Polymerization. ACS Applied Materials & Interfaces, 2017, 9, 6306-6313.	8.0	51
69	Robotic dipping system for layer-by-layer assembly of multifunctional thin films. Review of Scientific Instruments, 2005, 76, 103904.	1.3	49
70	Flame retardant polyester fabric from nitrogen-rich low molecular weight additives within intumescent nanocoating. Polymer Degradation and Stability, 2019, 170, 108998.	5.8	49
71	Preparation and evaluation of tungsten tips relative to diamond for nanoindentation of soft materials. Review of Scientific Instruments, 2001, 72, 2804-2810.	1.3	48
72	Tailored dispersion of carbon nanotubes in water with pH-responsive polymers. Polymer, 2010, 51, 1761-1770.	3.8	47

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73	Fine control of carbon nanotubesâ€“polyelectrolyte sensors sensitivity by electrostatic layer by layer assembly (eLbL) for the detection of volatile organic compounds (VOC). Talanta, 2012, 88, 396-402.	5.5	47
74	Exceptional Flame Resistance and Gas Barrier with Thick Multilayer Nanobrick Wall Thin Films. Advanced Materials Interfaces, 2015, 2, 1500214.	3.7	47
75	Water-soluble polyelectrolyte complexes that extinguish fire on cotton fabric when deposited as pH-cured nanocoating. Polymer Degradation and Stability, 2015, 114, 60-64.	5.8	47
76	Humidity-Responsive Gas Barrier of Hydrogen-Bonded Polymerâ€“Clay Multilayer Thin Films. Journal of Physical Chemistry C, 2012, 116, 19851-19856.	3.1	45
77	Intumescent Nanocoating Extinguishes Flame on Fabric Using Aqueous Polyelectrolyte Complex Deposited in Single Step. Macromolecular Materials and Engineering, 2014, 299, 1180-1187.	3.6	45
78	Highly Sizeâ€Selective Ionically Crosslinked Multilayer Polymer Films for Light Gas Separation. Advanced Materials, 2014, 26, 746-751.	21.0	45
79	Structural tailoring of hydrogen-bonded poly(acrylic acid)/poly(ethylene oxide) multilayer thin films for reduced gas permeability. Soft Matter, 2015, 11, 1001-1007.	2.7	45
80	A wash-durable polyelectrolyte complex that extinguishes flames on polyesterâ€“cotton fabric. RSC Advances, 2016, 6, 33998-34004.	3.6	45
81	Oxygen barrier of multilayer thin films comprised of polysaccharides and clay. Carbohydrate Polymers, 2013, 95, 299-302.	10.2	44
82	Maintaining hand and improving fire resistance of cotton fabric through ultrasonication rinsing of multilayer nanocoating. Cellulose, 2014, 21, 3023-3030.	4.9	44
83	Super Gas Barrier and Fire Resistance of Nanoplatelet/Nanofibril Multilayer Thin Films. Advanced Materials Interfaces, 2019, 6, 1801424.	3.7	44
84	Characterization of Solutionâ€Processed Doubleâ€Walled Carbon Nanotube/Poly(vinylidene fluoride) Nanocomposites. Macromolecular Materials and Engineering, 2008, 293, 123-131.	3.6	43
85	Layer-by-Layer Assembly of UV-Resistant Poly(3,4-ethylenedioxythiophene) Thin Films. Langmuir, 2008, 24, 8314-8318.	3.5	43
86	Note: Influence of rinsing and drying routines on growth of multilayer thin films using automated deposition system. Review of Scientific Instruments, 2010, 81, 036103.	1.3	43
87	Influence of Stabilizer Concentration on Transport Behavior and Thermopower of CNTâ€Filled Latexâ€Based Composites. Macromolecular Materials and Engineering, 2010, 295, 431-436.	3.6	42
88	Heating and acid doping thin film carbon nanotube assemblies for high transparency and low sheet resistance. Journal of Materials Chemistry, 2011, 21, 363-368.	6.7	41
89	Carbon Nanotube Multilayer Nanocoatings Prevent Flame Spread on Flexible Polyurethane Foam. Macromolecular Materials and Engineering, 2016, 301, 665-673.	3.6	41
90	Graphene-induced enhancement of water vapor barrier in polymer nanocomposites. Composites Part B: Engineering, 2018, 134, 218-224.	12.0	40

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91	Facile two-step phosphazine-based network coating for flame retardant cotton. Cellulose, 2020, 27, 4123-4132.	4.9	40
92	Conductive coatings and composites from latex-based dispersions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 311, 48-54.	4.7	39
93	Stretchable Gas Barrier Achieved with Partially Hydrogenâ€Bonded Multilayer Nanocoating. Macromolecular Rapid Communications, 2014, 35, 960-964.	3.9	39
94	Combined High Stretchability and Gas Barrier in Hydrogen-Bonded Multilayer Nanobrick Wall Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 7903-7907.	8.0	39
95	Controlling Effective Aspect Ratio and Packing of Clay with pH for Improved Gas Barrier in Nanobrick Wall Thin Films. ACS Applied Materials & Interfaces, 2014, 6, 22914-22919.	8.0	38
96	Shift-Time Polyelectrolyte Multilayer Assembly: Fast Film Growth and High Gas Barrier with Fewer Layers by Adjusting Deposition Time. ACS Macro Letters, 2014, 3, 663-666.	4.8	38
97	Combined Ionic and Hydrogen Bonding in Polymer Multilayer Thin Film for High Gas Barrier and Stretchiness. Macromolecules, 2015, 48, 5723-5729.	4.8	38
98	Low-Temperature Thermal Reduction of Graphene Oxide Nanobrick Walls: Unique Combination of High Gas Barrier and Low Resistivity in Fully Organic Polyelectrolyte Multilayer Thin Films. ACS Applied Materials & Interfaces, 2014, 6, 9942-9945.	8.0	37
99	Environmentally Benign and Self-Extinguishing Multilayer Nanocoating for Protection of Flammable Foam. ACS Applied Materials & Interfaces, 2020, 12, 49130-49137.	8.0	37
100	pH Tailoring Electrical and Mechanical Behavior of Polymerâ€“Clayâ€“Nanotube Aerogels. Macromolecular Rapid Communications, 2009, 30, 1669-1673.	3.9	36
101	Fully organic ITO replacement through acid doping of double-walled carbon nanotube thin film assemblies. RSC Advances, 2011, 1, 662.	3.6	36
102	Chemo-sensitivity of latex-based films containing segregated networks of carbon nanotubes. Sensors and Actuators B: Chemical, 2011, 155, 28-36.	7.8	36
103	Stiff and Transparent Multilayer Thin Films Prepared Through Hydrogenâ€Bonding Layerâ€byâ€Layer Assembly of Graphene and Polymer. Advanced Functional Materials, 2016, 26, 2143-2149.	14.9	36
104	Fast Selfâ€Healing of Polyelectrolyte Multilayer Nanocoating and Restoration of Super Oxygen Barrier. Macromolecular Rapid Communications, 2017, 38, 1700064.	3.9	36
105	Mica-Based Multilayer Nanocoating as a Highly Effective Flame Retardant and Smoke Suppressant. ACS Applied Materials & Interfaces, 2020, 12, 19938-19943.	8.0	36
106	Monodisperse latex with variable glass transition temperature and particle size for use as matrix starting material for conductive polymer composites. Polymer, 2001, 42, 6913-6921.	3.8	35
107	Water-soluble polyelectrolyte complex nanocoating for flame retardant nylon-cotton fabric. Polymer Degradation and Stability, 2015, 122, 1-7.	5.8	34
108	Nanomechanical Behavior of High Gas Barrier Multilayer Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 11128-11138.	8.0	33

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109	Polyelectrolyte Coacervates Deposited as High Gas Barrier Thin Films. Macromolecular Rapid Communications, 2017, 38, 1600594.	3.9	33
110	Environmentally Benign Polyelectrolyte Complex That Renders Wood Flame Retardant and Mechanically Strengthened. Macromolecular Materials and Engineering, 2019, 304, 1900179.	3.6	33
111	Influence of polymer modulus on the percolation threshold of latex-based composites. Polymer, 2008, 49, 570-578.	3.8	32
112	Influence of polymer interdiffusion and clay concentration on gas barrier of polyelectrolyte/clay nanobrick wall quadlayer assemblies. Journal of Membrane Science, 2014, 452, 46-53.	8.2	32
113	Segregated Networks of Carbon Black in Poly(vinyl acetate) Latex: Influence of Clay on the Electrical and Mechanical Behavior. Macromolecular Chemistry and Physics, 2008, 209, 2399-2409.	2.2	31
114	Flexible latexâ€"polyaniline segregated network composite coating capable of measuring large strain on epoxy. Smart Materials and Structures, 2013, 22, 015008.	3.5	31
115	High gas barrier imparted by similarly charged multilayers in nanobrick wall thin films. RSC Advances, 2014, 4, 18354-18359.	3.6	31
116	Hexagonal Boron Nitride Platelet-Based Nanocoating for Fire Protection. ACS Applied Nano Materials, 2019, 2, 5450-5459.	5.0	30
117	Nanotube Friendly Poly(Nâ€isopropylacrylamide). Macromolecular Rapid Communications, 2010, 31, 1368-1372.	3.9	29
118	Super Stretchy Polymer Multilayer Thin Film with High Gas Barrier. ACS Macro Letters, 2014, 3, 1055-1058.	4.8	29
119	Elastomeric Polymer Multilayer Thin Film with Sustainable Gas Barrier at High Strain. ACS Applied Materials & Interfaces, 2015, 7, 16148-16151.	8.0	29
120	Method for Combinatorial Screening of Moisture Vapor Transmission Rate. ACS Combinatorial Science, 2003, 5, 362-368.	3.3	28
121	Super Hydrogen and Helium Barrier with Polyelectolyte Nanobrick Wall Thin Film. Macromolecular Rapid Communications, 2015, 36, 96-101.	3.9	28
122	Super Oxygen and Improved Water Vapor Barrier of Polypropylene Film with Polyelectrolyte Multilayer Nanocoatings. Macromolecular Rapid Communications, 2016, 37, 963-968.	3.9	28
123	Environmentally-Benign Phytic Acid-Based Multilayer Coating for Flame Retardant Cotton. Materials, 2020, 13, 5492.	2.9	27
124	Environmentally-benign, water-based covalent polymer network for flame retardant cotton. Cellulose, 2021, 28, 5855.	4.9	27
125	Carbon black thin films with tunable resistance and optical transparency. Carbon, 2006, 44, 1974-1981.	10.3	26
126	Thermally Enhanced nâ€Type Thermoelectric Behavior in Completely Organic Graphene Oxideâ€Based Thin Films. Advanced Electronic Materials, 2019, 5, 1800465.	5.1	26

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127	Influence of polymer particle size on the percolation threshold of electrically conductive latexâ€based composites. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 1547-1554.	2.1	25
128	Polyelectrolyte Multilayer Nanocoating Dramatically Reduces Bacterial Adhesion to Polyester Fabric. ACS Biomaterials Science and Engineering, 2017, 3, 1845-1852.	5.2	25
129	Thermal degradation of highâ€temperature fluorinated polyimide and its carbon fiber composite. Journal of Applied Polymer Science, 2010, 115, 2254-2261.	2.6	24
130	Contact electrification between identical polymers as the basis for triboelectric/flexoelectric materials. Physical Chemistry Chemical Physics, 2020, 22, 13299-13305.	2.8	24
131	Tailoring Properties of Carbon Nanotube Dispersions and Nanocomposites Using Temperature-Responsive Copolymers of Pyrene-Modified Poly(N-cyclopropylacrylamide). Macromolecules, 2010, 43, 9447-9453.	4.8	23
132	Thick Growing Multilayer Nanobrick Wall Thin Films: Super Gas Barrier with Very Few Layers. Langmuir, 2014, 30, 7057-7060.	3.5	23
133	High Oxygen Barrier Thin Film from Aqueous Polymer/Clay Slurry. Industrial & Engineering Chemistry Research, 2018, 57, 6904-6909.	3.7	23
134	Combination Intumescent and Kaolinâ€Filled Multilayer Nanocoatings that Reduce Polyurethane Flammability. Macromolecular Materials and Engineering, 2019, 304, 1800531.	3.6	23
135	Layer-by-Layer Deposition: A Promising Environmentally Benign Flame-Retardant Treatment for Cotton, Polyester, Polyamide and Blended Textiles. Materials, 2022, 15, 432.	2.9	23
136	Edge Charge Neutralization of Clay for Improved Oxygen Gas Barrier in Multilayer Nanobrick Wall Thin Films. ACS Applied Materials & Interfaces, 2016, 8, 34784-34790.	8.0	22
137	Clay-mediated carbon nanotube dispersion in poly(N-Isopropylacrylamide). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 489, 19-26.	4.7	22
138	Stretchable electrically conductive and high gas barrier nanocomposites. Journal of Materials Chemistry C, 2018, 6, 2095-2104.	5.5	22
139	Transparent Polyelectrolyte Complex Thin Films with Ultralow Oxygen Transmission Rate. Langmuir, 2018, 34, 11086-11091.	3.5	22
140	Clay-Filled Polyelectrolyte Complex Nanocoating for Flame-Retardant Polyurethane Foam. ACS Omega, 2021, 6, 8016-8020.	3.5	22
141	Electrical and mechanical property transitions in carbon-filled poly(vinylpyrrolidone). Journal of Materials Research, 1999, 14, 4132-4135.	2.6	21
142	Thermoelectric Performance Improvement of Polymer Nanocomposites by Selective Thermal Degradation. ACS Applied Energy Materials, 2019, 2, 5975-5982.	5.1	21
143	Crosslinkableâ€Chitosanâ€Enabled Moistureâ€Resistant Multilayer Gas Barrier Thin Film. Macromolecular Rapid Communications, 2019, 40, e1800853.	3.9	21
144	Amine Salt Thickening of Intumescent Multilayer Flame Retardant Treatment. Industrial & Engineering Chemistry Research, 2020, 59, 2689-2695.	3.7	21

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145	Conductive Thin Films on Functionalized Polyethylene Particles. Chemistry of Materials, 2006, 18, 2997-3004.	6.7	19
146	Nanobrick wall multilayer thin films grown faster and stronger using electrophoretic deposition. Nanotechnology, 2015, 26, 185703.	2.6	19
147	Influence of Graphene Reduction and Polymer Cross-Linking on Improving the Interfacial Properties of Multilayer Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 1107-1118.	8.0	19
148	Extraordinary Corrosion Protection from Polymerâ€“Clay Nanobrick Wall Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 21799-21803.	8.0	19
149	Water-Based Melanin Multilayer Thin Films with Broadband UV Absorption. ACS Macro Letters, 2015, 4, 335-338.	4.8	18
150	Unusually fast and large actuation from multilayer polyelectrolyte thin films. Soft Matter, 2019, 15, 2311-2314.	2.7	18
151	Influence of Clay size on corrosion protection by Clay nanocomposite thin films. Progress in Organic Coatings, 2020, 140, 105489.	3.9	18
152	Effect of dispersing aid on electrical and mechanical behavior of carbon black-filled latex. Journal of Materials Science Letters, 2001, 20, 1523-1526.	0.5	17
153	Combinatorial Development of Pressure-Sensitive Adhesives. Macromolecular Rapid Communications, 2004, 25, 286-291.	3.9	17
154	Bio-inspired iridescent layer-by-layer assembled cellulose nanocrystal Bragg stacks. Journal of Materials Chemistry C, 2015, 3, 4260-4264.	5.5	16
155	Highly selective hollow fiber membranes for carbon capture via in-situ layer-by-layer surface functionalization. Journal of Membrane Science, 2021, 633, 119381.	8.2	16
156	Environmentally Benign Phytic Acid-Based Nanocoating for Multifunctional Flame-Retardant/Antibacterial Cotton. Fibers, 2021, 9, 69.	4.0	16
157	Flame-Retardant, Antimicrobial, and UV-Protective Lignin-Based Multilayer Nanocoating. ACS Applied Polymer Materials, 2022, 4, 4528-4537.	4.4	16
158	Fast switching electrochromism from colloidal indium tin oxide in tungstate-based thin film assemblies. Electrochimica Acta, 2010, 55, 3257-3267.	5.2	15
159	High oxygen barrier, clay and chitosan-based multilayer thin films: an environmentally friendly foil replacement. Green Materials, 2013, 1, 4-10.	2.1	15
160	Ultrastrong, Chemically Resistant Reduced Graphene Oxide-based Multilayer Thin Films with Damage Detection Capability. ACS Applied Materials & Interfaces, 2016, 8, 6229-6235.	8.0	15
161	Highly selective multilayer polymer thin films for CO₂/N₂ separation. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1730-1737.	2.1	15
162	Improved Thermoelectric Power Factor in Completely Organic Nanocomposite Enabled by <scp>l</scp>-Ascorbic Acid. ACS Applied Polymer Materials, 2019, 1, 1942-1947.	4.4	15

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163	Fast Spray Deposition of Super Gas Barrier Polyelectrolyte Multilayer Thin Films. Industrial & Engineering Chemistry Research, 2015, 54, 5254-5260.	3.7	14
164	Salt doping to improve thermoelectric power factor of organic nanocomposite thin films. RSC Advances, 2020, 10, 11800-11807.	3.6	14
165	Organic thermoelectric thin films with large p-type and n-type power factor. Journal of Materials Science, 2021, 56, 4291-4304.	3.7	14
166	Polymeric coacervate coating for flame retardant paper. Cellulose, 2022, 29, 4589-4597.	4.9	14
167	Ultrathin Transparent Nanobrick Wall Anticorrosion Coatings. ACS Applied Nano Materials, 2018, 1, 5516-5523.	5.0	13
168	Flame suppression of polyamide through combined enzymatic modification and addition of urea to multilayer nanocoating. Journal of Materials Science, 2020, 55, 15056-15067.	3.7	13
169	Efficient Heat Shielding of Steel with Multilayer Nanocomposite Thin Film. ACS Applied Materials & Interfaces, 2021, 13, 19369-19376.	8.0	12
170	Hydrophobically modified polyelectrolyte for improved oxygen barrier in nanobrick wall multilayer thin films. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1153-1156.	2.1	11
171	Mixed solvent synthesis of polydopamine nanospheres for sustainable multilayer flame retardant nanocoating. Polymer Chemistry, 2021, 12, 2389-2396.	3.9	11
172	Extraordinarily High Dielectric Breakdown Strength of Multilayer Polyelectrolyte Thin Films. Macromolecules, 2022, 55, 3151-3158.	4.8	11
173	Ultrafast and Highly Localized Microwave Heating in Carbon Nanotube Multilayer Thin Films. Advanced Materials Interfaces, 2017, 4, 1700371.	3.7	10
174	High Moisture Barrier with Synergistic Combination of SiO_x and Polyelectrolyte Nanolayers. Advanced Materials Interfaces, 2019, 6, 1900740.	3.7	10
175	Renewable nanobrick wall coatings for fire protection of wood. Green Materials, 2020, 8, 131-138.	2.1	10
176	Super Gas Barrier of a Polyelectrolyte/Clay Coacervate Thin Film. Macromolecular Rapid Communications, 2021, 42, 2000540.	3.9	10
177	Edible Polyelectrolyte Complex Nanocoating for Protection of Perishable Produce. ACS Food Science & Technology, 2021, 1, 495-499.	2.7	10
178	Polyelectrolyte photopolymer complexes for flame retardant wood. Materials Chemistry Frontiers, 2022, 6, 1630-1636.	5.9	10
179	Lowâ€Temperature Formation of Ultraâ€Highâ€Temperature Transition Metal Carbides from Saltâ€“Polymer Precursors. Journal of the American Ceramic Society, 2010, 93, 2222-2228.	3.8	9
180	Self-Extinguishing Additive Manufacturing Filament from a Unique Combination of Polylactic Acid and a Polyelectrolyte Complex. , 2020, 2, 15-19.		9

#	Article	IF	Citations
181	UV-protection from chitosan derivatized lignin multilayer thin film. RSC Advances, 2020, 10, 32959-32965.	3.6	9
182	Crosslinking of epoxy-modified phenol novolac (EPN) powder coatings: Particle size and adhesion. Journal of Coatings Technology, 1999, 71, 135-142.	0.7	8
183	Nanocoating of starch and clay that reduces the flammability of polyurethane foam. Green Materials, 2017, 5, 182-186.	2.1	8
184	Cross-linking and silanization of clay-based multilayer films for improved corrosion protection of steel. Journal of Materials Science, 2022, 57, 2988-2998.	3.7	8
185	Deposition and patterning of conductive carbon black thin films. Synthetic Metals, 2007, 157, 632-639.	3.9	7
186	In situ nanomechanical behavior and self-healing response of polymeric multilayer thin films. Polymer, 2017, 131, 169-178.	3.8	7
187	Acid-Doped Biopolymer Nanocoatings for Flame-Retardant Polyurethane Foam. ACS Applied Polymer Materials, 2022, 4, 1983-1990.	4.4	7
188	High-throughput measurement of polymer film thickness using optical dyes. Measurement Science and Technology, 2005, 16, 153-161.	2.6	6
189	Introduction: Combinatorial instruments and techniques. Review of Scientific Instruments, 2005, 76, 062101.	1.3	6
190	Micropatterning and Impedance Characterization of an Electrically Percolating Layer-by-Layer Assembly. Electroanalysis, 2007, 19, 964-972.	2.9	6
191	Highly Conductive Graphene and Polyelectrolyte Multilayer Thin Films Produced From Aqueous Suspension. Macromolecular Rapid Communications, 2016, 37, 1790-1794.	3.9	6
192	Environmentally Benign Flame Retardant Polyamideâ€6 Filament for Additive Manufacturing. Macromolecular Materials and Engineering, 2021, 306, 2100245.	3.6	6
193	Balancing polyelectrolyte diffusion and clay deposition for high gas barrier. Green Materials, 2016, 4, 98-103.	2.1	5
194	Synergy in epoxy nanocomposites with cellulose nanocrystals and Boehmite. Green Materials, 2014, 2, 222-231.	2.1	4
195	Enhancing H2-permselectivity of high-flux hollow fiber membrane via in-situ layer-by-layer surface treatment. Journal of Membrane Science, 2020, 615, 118312.	8.2	4
196	Small molecule additives in multilayer polymer-clay thin films for improved heat shielding of steel. Npj Materials Degradation, 2022, 6, .	5.8	4
197	Blistering in carbonâ€fiberâ€filled fluorinated polyimide. Polymer Composites, 2011, 32, 185-192.	4.6	3
198	Enzymatic Modification of Polyamide for Improving the Conductivity of Water-Based Multilayer Nanocoatings. ACS Omega, 2019, 4, 12028-12035.	3.5	3

#	Article	IF	Citations
199	Influence of cation size on the thermoelectric behavior of salt-doped organic nanocomposite thin films. Applied Physics Letters, 2021, 118, 151904.	3.3	3
200	Polyelectrolyte Complex that Minimizes Bacterial Adhesion to Polyester. Macromolecular Materials and Engineering, 2021, 306, 2100579.	3.6	3
201	Modulus Determination of Polymer Matrix Composites: Comparison of Nanoindentation and Dynamic Mechanical Analysis. Materials Research Society Symposia Proceedings, 2000, 649, 351.	0.1	2
202	Tailoring Thermoelectric Properties of Segregated-Network Polymer Nanocomposites for Thermoelectric Energy Conversion. , 2009, , .		2
203	Antibacterial cotton from novel phytic acid-based multilayer nanocoating. Green Materials, 2022, 10, 35-40.	2.1	2
204	Nanoindentation and nanoscratch of sub-micron polymer nanocomposite films on compliant substrate. Thin Solid Films, 2021, 736, 138905.	1.8	2
205	Lowering the percolation threshold of conductive composites using particulate polymer microstructure. Journal of Applied Polymer Science, 2001, 80, 692-705.	2.6	2
206	Tailoring of Carbon Nanotube Microstructure Using Poly(acrylic acid) and Poly(allylamine) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (	0.1	1
207	Preface to Special Topic: Instruments and methods for combinatorial science and high-throughput screening. Review of Scientific Instruments, 2007, 78, 072101.	1.3	1
208	Carbon Nanotube Dispersion in Epoxy Nanocomposites with Clay. Materials Research Society Symposia Proceedings, 2007, 1057, 1.	0.1	1
209	Flame-Retardant Materials: Intumescent All-Polymer Multilayer Nanocoating Capable of Extinguishing Flame on Fabric (Adv. Mater. 34/2011). Advanced Materials, 2011, 23, 3868-3868.	21.0	1
210	Editorial: green nanocomposites. Green Materials, 2014, 2, 161-162.	2.1	1
211	Lowering the percolation threshold of conductive composites using particulate polymer microstructure. , 2001, 80, 692.		1
212	Figures of Merit for Electrically Conductive Polymer Composites. Materials Research Society Symposia Proceedings, 2000, 661, KK5.2.1.	0.1	0
213	Combinatorial Study and High Throughput Screening of Transparent Oxygen and Moisture Barrier Films. Materials Research Society Symposia Proceedings, 2003, 804, 217.	0.1	0
214	Fast-Switching, High-Contrast Electrochromic Thin Films Prepared Using Layer-by-Layer Assembly of Charged Species. Materials Research Society Symposia Proceedings, 2004, 846, DD11.2.1.	0.1	0
215	High-Throughput Screening of Barrier and Adhesive Behavior of Polymeric Coatings. Materials Research Society Symposia Proceedings, 2005, 894, 1.	0.1	0
216	UV Resistant Poly(3,4-ethylenedioxythiophene) Thin Films: Layer-by-Layer Assembly with Absorbing Nanoparticles. Materials Research Society Symposia Proceedings, 2007, 1054, 5.	0.1	0

#	Article	IF	Citations
217	Macromol. Rapid Commun. 10/2015. Macromolecular Rapid Communications, 2015, 36, 932-932.	3.9	0
218	Combinatorial Study and High-Throughput Screening of Transparent Barrier Films using Chemical Sensors. , 2003, , 289-316.		0