Sergei Lomakin

List of Publications by Citations

104 papers	2,131 citations	16 h-index	45 g-index
111 ext. papers	2,282 ext. citations	2 avg, IF	4.57 L-index

#	Paper	IF	Citations
104	Polydimethylsiloxane thermal degradation Part 1. Kinetic aspects. *Polymer*, **2001**, 42, 2395-2402	3.9	525
103	Polymer layered silicate nanocomposites. *Macromolecular Materials and Engineering*, **2000**, 279, 1-9	3.9	423
102	Thermal polydimethylsiloxane degradation. Part 2. The degradation mechanisms. *Polymer*, **2002**, 43, 2011-2015	3.9	375
101	Ecological issue of polymer flame retardancy. *Journal of Applied Polymer Science*, **2002**, 86, 2449-2462	2.9	83
100	Polymer flame retardancy: A new approach. *Journal of Applied Polymer Science*, **1998**, 68, 715-725	2.9	47
99	Thermal degradation of biodegradable blends of polyethylene with cellulose and ethylcellulose. *Thermochimica Acta*, **2011**, 521, 66-73	2.9	46
98	An investigation of the thermal stability and char-forming tendency of cross-linked poly(methyl methacrylate). *Polymer Degradation and Stability*, **1993**, 41, 229-243	4.7	40
97	Thermal properties of polyethylene/montmorillonite nanocomposites prepared by intercalative polymerization. *Journal of Materials Science*, **2008**, 43, 1340-1353	4.3	35
96	New aspects of ecologically friendly polymer flame retardant systems. *Polymer Degradation and Stability*, **1996**, 54, 223-233	4.7	31
95	Thermal degradation and combustion behavior of the polyethylene/clay nanocomposite prepared by melt intercalation. *Journal of Thermal Analysis and Calorimetry*, **2008**, 94, 719-726	4.1	29
94	Morphology, deformation behavior and thermomechanical properties of polypropylene/maleic anhydride grafted polypropylene/layered silicate nanocomposites. *Journal of Applied Polymer Science*, **2007**, 105, 3836-3850	2.9	27
93	Kinetic study of polypropylene nanocomposite thermo-oxidative degradation. *Polymer International*, **2005**, 54, 999-1006	3.3	26
92	Characterization of flame-retarded polymer combustion chars by solid-state 13C and 29Si NMR and EPR. *Fire and Materials*, **1998**, 22, 61-67	1.8	24
91	Carbonization of Poly(vinyl Alcohol) in Blends with Boron Polyoxide. *Doklady Physical Chemistry*, **2005**, 403, 154-158	0.8	19
90	The effect of multi-walled carbon nanotubes addition on the thermo-oxidative decomposition and flammability of PP/MWCNT nanocomposites. *Journal of Materials Science*, **2010**, 45, 633-640	4.3	18
89	Nonwoven blend composites based on poly(3-hydroxybutyrate)–chitosan ultrathin fibers prepared via electrospinning. *Polymer Science - Series A*, **2016**, 58, 76-86	1.2	17
88	Structural-dynamic characteristics of matrices based on ultrathin poly(3-hydroxybutyrate) fibers prepared via electrospinning. *Polymer Science - Series A*, **2015**, 57, 131-138	1.2	15

87	The effect of graphite nanoplates on the thermal degradation and combustion of polyethylene. *Journal of Analytical and Applied Pyrolysis*, **2017**, 128, 275-280	6	14
86	Structural dynamic properties of nonwoven composite mixtures based on ultrafine tissues of poly(3-hydroxybutyrate) with chitosan. *Russian Journal of Physical Chemistry B*, **2016**, 10, 687-698	1.2	14
85	Effect of external influences on the structural and dynamic parameters of polyhydroxybutyrate-hydroxyvalerate-based biocomposites. *Russian Journal of Physical Chemistry B* , **2012**, 6, 72-80	1.2	13
84	The youngest natural oil on earth. *Doklady Chemistry*, **2011**, 438, 144-147	0.8	13
83	Effect of the graphite nanoplatelet size on the mechanical, thermal, and electrical properties of polypropylene/exfoliated graphite nanocomposites. *Journal of Applied Polymer Science*, **2012**, 128, n/a-n/a	2.9	12
82	Polyethylene-layered silicate nanocomposites: Synthesis, structure, and properties. *Nanotechnologies in Russia*, **2008**, 3, 330-343	0.6	11
81	Changes in the structural parameters and molecular dynamics of polyhydroxybutyrate-chitosan mixed compositions under external influences. *Russian Journal of Physical Chemistry B*, **2013**, 7, 225-231	1.2	10
80	Free-radical cross-linking of serum albumin molecules on the surface of magnetite nanoparticles in aqueous dispersion. *Colloid Journal*, **2013**, 75, 7-13	1.1	10
79	Probe mobility dynamics, crystal structure, and isotope exchange in PHBV and SPEU blend compositions. *Doklady Physical Chemistry*, **2012**, 446, 176-179	0.8	10
78	Thermal and Physical and Mechanical Properties of Polysulfone Composites with Carbon Nanotubes. *Russian Journal of Physical Chemistry B*, **2019**, 13, 519-524	1.2	9
77	The effect of multiwalled carbon nanotube dimensions on the morphology, mechanical, and electrical properties of melt mixed polypropylene-based composites. *Journal of Applied Polymer Science*, **2010**, 117, NA-NA	2.9	9
76	Thermal degradation and combustion of a polypropylene nanocomposite based on organically modified layered aluminosilicate. *Polymer Science - Series A*, **2006**, 48, 72-84	1.2	9
75	Specific Features of Thermal Degradation of Polypropylene in the Presence of Magnesium Hydroxide. *Russian Journal of Applied Chemistry*, **2004**, 77, 445-448	0.8	9
74	Ecological aspects of polymer flame retardation. *Journal of Vinyl and Additive Technology*, **1999**, 5, 12-20	2	9
73	Advances in Nylon 6,6 Flame Retardancy. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1996**, 32, 173-202	3	9
72	The structure, properties, and thermal destruction of biodegradable blends of cellulose and ethylcellulose with synthetic polymers. *Russian Journal of Physical Chemistry B*, **2012**, 6, 416-424	1.2	8
71	Thermal and Oxydative Stability of PVA and Nylon 6,6. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1994**, 26, 187-194	3	8
70	Kinetics of pulse pyrolysis of carbonaceous feedstock under oscillating temperature conditions. *Doklady Chemistry*, **2015**, 462, 112-114	0.8	7

69	Innovative type of low flammability varnish based on poly(vinyl alcohol). *Polymer Degradation and Stability*, **1997**, 57, 279-282	4.7	7
68	New type of ecologically safe flame retardant based on polymer char former. *Polymer Degradation and Stability*, **1996**, 51, 343-350	4.7	7
67	Flammability Properties of Honeycomb Composites and Phenol–Formaldehyde Resins. *ACS Symposium Series*, **1995**, 245-255	0.4	7
66	Novel Low Flammable Coating Based on Polyvinyl Alcohol. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1997**, 38, 321-328	3	6
65	Preparation and characteristics of composites based on polypropylene and ultradispersed calcium carbonate. *Polymer Science - Series A*, **2008**, 50, 1214-1225	1.2	6
64	High-Temperature Thermal Degradation of Polyethylene in an Inorganic Polyoxide Matrix. *Doklady Physical Chemistry*, **2004**, 398, 231-235	0.8	6
63	New Types of Ecologically Safe Flame Retardant Systems for Polymethylmethacrylate. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1996**, 32, 213-220	3	6
62	Applied Nanotechnology		6
61	Synthesis of an inorganic-organic polymer blend from orthoboric acid and caprolactam. *Polymer Science - Series A*, **2006**, 48, 228-233	1.2	5
60	Thermal degradation and combustion of polymeric blends. *Journal of Applied Polymer Science*, **2002**, 86, 3300-3311	2.9	5
59	Thermal Degradation of Polystyrene-Polydimethylsiloxane Blends. *Russian Journal of Applied Chemistry*, **2003**, 76, 472-482	0.8	5
58	The influence of shear forces on clay modification with oppositely charged polyelectrolytes. *Macromolecular Materials and Engineering*, **2000**, 279, 10-18	3.9	5
57	Molecular Dynamics Modeling of Polymer Flammability. *Materials Research Society Symposia Proceedings*, **1992**, 278, 47		5
56	The thermal degradation of net polymethacrylates. *Polymer Degradation and Stability*, **1992**, 36, 187-198	4.7	5
55	Photoinduced Reactions of Benzophenone in Biaxially Oriented Polypropylene. *Journal of Physical Chemistry A*, **2018**, 122, 4298-4305	2.8	4
54	Role of Structural Stresses in the Thermodestruction of Supercoiled Cellulose Macromolecules after Nitration. *Russian Journal of Physical Chemistry B*, **2018**, 12, 36-45	1.2	4
53	Macrokinetic model of pyrolysis of carbonaceous feedstock in a tubular reactor. *Doklady Chemistry*, **2016**, 467, 76-78	0.8	4
52	Structure and biological properties of sodium and potassium 1-(carboxy)-1-(N-methylamide)-2-(3?,5?-di-tert-butyl)-4-hydroxyphenyl)-propionates. *Russian Journal of Physical Chemistry B*, **2013**, 7, 44-49	1.2	4

51	Novel Class of Eco-Flame Retardants Based on the Renewable Raw Materials **2014**, 255-266		4
50	Thermal Degradation and Combustion Behavior of Polypropylene/MWCNT Composites. *Molecular Crystals and Liquid Crystals*, **2010**, 523, 106/[678]-119/[691]	0.5	4
49	Photo- and thermal-oxidative stability of novel material for photovoltaics: MEH-PPV/TNF blends. *Renewable Energy*, **2008**, 33, 259-261	8.1	4
48	Polypropylene Flame Retardant System Based on Si-SnCl2. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1996**, 32, 203-211	3	4
47	New Types of Ecologically Safe Flame-Retardant Polymer Systems. *ACS Symposium Series*, **1995**, 186-198	0.4	4
46	Kinetics of Polyvinyl Alcohol Thermal Degradation in the Compositions with Boron Polyoxide: Part 1. Kinetics of Thermal Degradation. *Russian Journal of Physical Chemistry B*, **2019**, 13, 374-382	1.2	3
45	Polypropylene composite with carbon nanotubes. *Chemical and Petroleum Engineering (English Translation of Khimicheskoe I Neftyanoe Mashinostroenie)*, **2012**, 47, 741-750	0.6	3
44	Study of the Mechanism of Fire-Retardant Action of Bio Flame Retartdant Based on Oxidized Compounds of Cellulose-Containing Biomass. *Russian Journal of Physical Chemistry B*, **2020**, 14, 1028-1035	1.2	3
43	Influence of the Chemical Nature and Structural Characteristics of Nanofillers on the Mechanism of Polyethylene Pyrolysis. *Russian Journal of Physical Chemistry B*, **2019**, 13, 825-830	1.2	3
42	Study of antiseptic properties of the flame retardant solution provided by oxidized plant waste with regard to wood staining and mold micromycetes. *IOP Conference Series: Materials Science and Engineering*, **2019**, 525, 012103	0.4	2
41	Modeling of carbonaceous feedstock pyrolysis in a multichannel reactor. *Doklady Chemistry*, **2016**, 470, 293-296	0.8	2
40	Effective Chemical Methods of Combustion Control: New Threats and New Solutions. *Herald of the Russian Academy of Sciences*, **2019**, 89, 151-156	0.7	2
39	Solid-phase polycondensation of aspartic acid 1. Kinetics of the process as evidenced by TGA and DSC data. *Russian Chemical Bulletin*, **2010**, 59, 806-811	1.7	2
38	New Aspects of Ecologically Friendly Polymer Flame Retardant Systems. *Polymer-Plastics Technology and Engineering*, **1997**, 36, 647-668		2
37	Kinetic analysis of solid-phase polycondensation of aspartic acid. *Doklady Physical Chemistry*, **2008**, 423, 327-329	0.8	2
36	Enhanced photo and thermal oxidative stability of the charge-transfer complexes of a conjugated polymer. *Mendeleev Communications*, **2007**, 17, 32-33	1.9	2
35	Thermal stability of native polybutylene terephthalate. *Journal of Applied Polymer Science*, **2004**, 92, 2351-2356	2.9	2
34	Ecological Aspects of Polymer Flame Retardation. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **2000**, 47, 61-78	3	2

33	Pyrolysis and Carbonization of Cross-Linked Poly(methyl methacrylate). *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1995**, 27, 223-230	3	2
32	Polymethacrylate Networks: Thermodynamics and Kinetics of Thermal Degradation. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1996**, 31, 153-170	3	2
31	Pyrolysis and Carbonization of Cross-Linked Poly(methyl methacrylate). *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1996**, 33, 133-140	3	2
30	Thermal degradation of cellulose diacetate. *Polymer Science USSR*, **1985**, 27, 1917-1926		2
29	Key Engineering Materials, Volume 1		2
28	Kinetics of the Thermal Destruction of Polyvinyl Alcohol in Composites with Boron Polyoxide. Part 2. Analysis of the Products of Thermal Destruction. *Russian Journal of Physical Chemistry B*, **2019**, 13, 514-518	1.2	1
27	Oxygen-induced free-radical reactions in phenylone nitrated by nitroxide dioxide. *Russian Journal of Physical Chemistry B*, **2017**, 11, 777-785	1.2	1
26	The effect of graphite nanoslabs on thermal oxidative destruction of polyethylene. *Polymer Science - Series D*, **2017**, 10, 330-333	0.4	1
25	Formation of 3,3?,5,5?-tetra(tert-butyl)diphenoquinone and 3,3?,5,5?-tetra(tert-butyl)-4,4?-dihydroxybiphenyl in the reaction of 2-(acetylamino)-3-[3?,5?-di(tert-butyl)-4?-hydroxyphenyl]propanoic acid with thionyl chloride. *Russian Chemical Bulletin*, **2013**, 62, 2265-2265	1.7	1
24	Alkaline hydrolysis of diethyl N-acetylamino(3,5-di-tert-butyl-4-hydroxybenzyl)malonate. *Russian Chemical Bulletin*, **2009**, 58, 920-925	1.7	1
23	Polymeric flame retardants **2005**, 243-259		1
22	Effect of a carbon black-graphite filler on the thermal degradation of a methylphenylsiloxane polymer. *Polymer Science USSR*, **1988**, 30, 1952-1959		1
21	Comparative Analysis of Thermal and Physico-Mechanical Properties of Polyethylene Compositions Containing Microcrystalline and Nanofibrillary Cellulose. *Russian Journal of Physical Chemistry B*, **2021**, 15, 716-723	1.2	1
20	Modeling of carbonaceous feedstock pyrolysis in a countercurrent tubular reactor. *Doklady Chemistry*, **2017**, 475, 192-195	0.8	0
19	Interaction of Nitrogen Dioxide with Poly-p-Phenylene Terephthalamide (Terlon). *Russian Journal of Physical Chemistry B*, **2022**, 16, 155-161	1.2	0
18	The Study of Properties and Structure of Polylactide Graphite Nanoplates Compositions. *Polymer Crystallization*, **2022**, 2022, 1-9	0.9	0
17	Optimal temperature conditions of carbonaceous feedstock pyrolysis. *Doklady Chemistry*, **2016**, 470, 302-306	0.8	
16	On the role of branched-chain (autocatalytic) reactions in the carbonaceous feedstock pyrolysis kinetics at oscillating temperature. *Doklady Chemistry*, **2016**, 471, 362-364	0.8	

15	Overall Kinetics of Heat Treatment of Municipal Solid Waste. *Doklady Chemistry*, **2018**, 479, 68-70	0.8
14	Analysis of thermal stability of polymer nanocomposites based on polypropylene. *Chemical and Petroleum Engineering (English Translation of Khimicheskoe I Neftyanoe Mashinostroenie)*, **2013**, 49, 333-337	0.6
13	Macrokinetics of carbonaceous feedstock pyrolysis in a tubular reactor of variable cross section. *Doklady Chemistry*, **2017**, 477, 254-256	0.8
12	Regulation of solid-phase polycondensation of L-aspartic acid. *Doklady Physical Chemistry*, **2009**, 429, 252-254	0.8
11	Features of stable radical generation in lignin on exposure to nitrogen dioxide. *Polymer Degradation and Stability*, **2010**, 95, 1177-1182	4.7
10	Ecological Aspects of Polymer Flame Retardation. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1998**, 41, 153-169	3
9	New Types of Ecologically Safe Flame Retardant Polymer Systems. *International Journal of Polymeric Materials and Polymeric Biomaterials*, **1996**, 31, 119-129	3
8	Thermal degradation of net polymethacrylates based on oligomers with conjugated acetylene groups. *Polymer Degradation and Stability*, **1992**, 37, 217-221	4.7
7	Calculation of the thermodynamic properties of the dimethacrylate esters of aliphatic glycols. *Bulletin of the Academy of Sciences of the USSR Division of Chemical Science*, **1980**, 29, 1438-1442	
6	Study of the kinetics and thermodynamics of thermal breakdown of reticular polymers of dimethacrylic esters of n-Alkalene glycols. *Polymer Science USSR*, **1982**, 24, 2378-2384	
5	Study of liquid-phase catalytic oxidation of natural renewable raw materials in alkaline media. *IOP Conference Series: Materials Science and Engineering*,525, 012096	0.4
4	Trends on New Biodegradable Blends on the Basis of Copolymers 3-Hydroxybutyrate with Hydroxyvalerate and Segmented Polyetherurethane **2014**, 151-158	
3	Study of products influence of rice waste liquid-phase catalytic oxidation on growth and plant development. *IOP Conference Series: Materials Science and Engineering*, **2020**, 848, 012108	0.4
2	Synergetic flame retardant effect of bio-flame retardant based on oxidized wood in polyester compositions. *IOP Conference Series: Materials Science and Engineering*, **2020**, 848, 012109	0.4
1	Correction of the Mechanism of Photolysis of Aminoazobenzole According to Kinetic Picosecond Spectroscopy. *Russian Journal of Physical Chemistry B*, **2022**, 16, 24-30	1.2