Rodolphe Sonnier

List of Publications by Year
in descending order

112 papers	2,781 citations	186265 28 h-index	233421 45 g-index
113 all docs	113 docs citations	113 times ranked	2418 citing authors

#	Article	IF	Citations
1	Effect of cellulose, hemicellulose and lignin contents on pyrolysis and combustion of natural fibers. Journal of Analytical and Applied Pyrolysis, 2014, 107, 323-331.	5.5	273
2	Fire behavior of halogen-free flame retardant electrical cables with the cone calorimeter. Journal of Hazardous Materials, 2018, 342, 306-316.	12.4	92
3	From a bio-based phosphorus-containing epoxy monomer to fully bio-based flame-retardant thermosets. RSC Advances, 2015, 5, 70856-70867.	3.6	87
4	Effect of post curing temperature on mechanical properties of a flax fiber reinforced epoxy composite. Composites Part A: Applied Science and Manufacturing, 2018, 107, 171-179.	7.6	78
5	Compatibilizing thermoplastic/ground tyre rubber powder blends: Efficiency and limits. Polymer Testing, 2008, 27, 901-907.	4.8	73
6	New Reactive Isoeugenol Based Phosphate Flame Retardant: Toward Green Epoxy Resins. ACS Sustainable Chemistry and Engineering, 2019, 7, 14074-14088.	6.7	72
7	Cardanol and Eugenol Based Flame Retardant Epoxy Monomers for Thermostable Networks. Molecules, 2019, 24, 1818.	3.8	71
8	Flame retardancy of phosphorus-containing ionic liquid based epoxy networks. Polymer Degradation and Stability, 2016, 134, 186-193.	5.8	67
9	Janus hybrid silica/polymer nanoparticles as effective compatibilizing agents for polystyrene/polyamide-6 melted blends. Polymer, 2016, 90, 34-44.	3.8	61
10	Effects of ageing on the fire behaviour of flame-retarded polymers: a review. Polymer International, 2015, 64, 313-328.	3.1	59
11	Combining cone calorimeter and PCFC to determine the mode of action of flameâ€retardant additives. Polymers for Advanced Technologies, 2011, 22, 1091-1099.	3.2	58
12	Improving the flame retardancy of flax fabrics by radiation grafting of phosphorus compounds. European Polymer Journal, 2015, 68, 313-325.	5.4	54
13	Synthesis of biobased phosphorus-containing flame retardants for epoxy thermosets comparison of additive and reactive approaches. Polymer Degradation and Stability, 2015, 120, 300-312.	5.8	45
14	Fire retardant benefits of combining aluminum hydroxide and silica in ethylene-vinyl acetate copolymer (EVA). Polymer Degradation and Stability, 2016, 128, 228-236.	5.8	42
15	Fire retardancy of ethylene vinyl acetate/ultrafine kaolinite composites. Polymer Degradation and Stability, 2014, 100, 54-62.	5.8	40
16	Is expanded graphite acting as flame retardant in epoxy resin?. Polymer Degradation and Stability, 2015, 117, 22-29.	5.8	40
17	Study of the combustion efficiency of polymers using a pyrolysisâ€“combustion flow calorimeter. Combustion and Flame, 2013, 160, 2182-2193.	5.2	39
18	Radiation-induced modifications in natural fibres and their biocomposites: Opportunities for controlled physico-chemical modification pathways?. Industrial Crops and Products, 2017, 109, 199-213.	5.2	38

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19	Interactions between kaolinite and phosphinate-based flame retardant in Polyamide 6. Applied Clay Science, 2018, 157, 248-256.	5.2	38
20	Incorporation of modified StÃ¶ber silica nanoparticles in polystyrene/polyamide-6 blends: Coalescence inhibition and modification of the thermal degradation via controlled dispersion at the interface. Polymer, 2014, 55, 2704-2715.	3.8	36
21	Grafting of phosphorus flame retardants on flax fabrics: Comparison between two routes. Polymer Degradation and Stability, 2018, 147, 25-34.	5.8	36
22	Flame retardancy of ethylene vinyl acetate (EVA) using new aluminum-based fillers. Polymer Degradation and Stability, 2014, 108, 56-67.	5.8	35
23	Synthesis of a new organophosphorous alkoxysilane precursor and its effect on the thermal and fire behavior of a PA66/PA6 copolymer. European Polymer Journal, 2015, 66, 352-366.	5.4	33
24	Relationships between the molecular structure and the flammability of polymers: Study of phosphonate functions using microscale combustion calorimeter. Polymer, 2012, 53, 1258-1266.	3.8	32
25	Novel nanocomposites based on poly(ethylene- co -vinyl acetate) for coating applications: The complementary actions of hydroxyapatite, MWCNTs and ammonium polyphosphate on flame retardancy. Progress in Organic Coatings, 2017, 113, 207-217.	3.9	31
26	Prediction of thermosets flammability using a model based on group contributions. Polymer, 2017, 127, 203-213.	3.8	31
27	Polycarbonate nanocomposite with improved fire behavior, physical and psychophysical transparency. European Polymer Journal, 2013, 49, 319-327.	5.4	30
28	Calcium and aluminum-based fillers as flame-retardant additives inÂsilicone matrices. III. Investigations on fire reaction. Polymer Degradation and Stability, 2013, 98, 2021-2032.	5.8	29
29	Water-based flame retardant coating using nano-boehmite for expanded polystyrene (EPS) foam. Progress in Organic Coatings, 2016, 99, 32-46.	3.9	29
30	Investigation of fire-resistance mechanisms of the ternary system (APP/MPP/TiO2) in PMMA. Polymer Degradation and Stability, 2012, 97, 2154-2161.	5.8	28
31	Theoretical and empirical approaches to understanding the effect of phosphonate groups on the thermal degradation for two chemically modified PMMA. European Polymer Journal, 2012, 48, 604-612.	5.4	28
32	Towards Bio-based Flame Retardant Polymers. Springer Briefs in Molecular Science, 2018, , .	0.1	28
33	Competitiveness and synergy between three flame retardants in poly(ethylene- co -vinyl acetate). Polymer Degradation and Stability, 2017, 143, 164-175.	5.8	27
34	Fire retardancy of polypropylene/kaolinite composites. Polymer Degradation and Stability, 2016, 129, 260-267.	5.8	26
35	Fire retardancy of ethylene-vinyl acetate composites â€“ Evaluation of synergistic effects between ATH and diatomite fillers. Polymer Degradation and Stability, 2016, 129, 246-259.	5.8	26
36	Predicting the flammability of polymers from their chemical structure: An improved model based on group contributions. Polymer, 2016, 86, 42-55.	3.8	26

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37	Flame Retardancy of Wood Fiber Materials Using Phosphorus-Modified Wheat Starch. Molecules, 2020, 25, 335.	3.8	26
38	Effect of phosphorous-modified silica on the flame retardancy of polypropylene based nanocomposites. Polymer Degradation and Stability, 2015, 119, 260-274.	5.8	24
39	Influence of Ammonium Polyphosphate/Lignin Ratio on Thermal and Fire Behavior of Biobased Thermoplastic: The Case of Polyamide 11. Materials, 2019, 12, 1146.	2.9	24
40	Self-extinguishing bio-based polyamides. Polymer Degradation and Stability, 2016, 134, 10-18.	5.8	23
41	Synthesis of biobased phosphate flame retardants. Pure and Applied Chemistry, 2014, 86, 1637-1650.	1.9	22
42	Pyrolysis-Combustion Flow Calorimetry: A Powerful Tool To Evaluate the Flame Retardancy of Polymers. ACS Symposium Series, 2012, , 361-390.	0.5	21
43	Synthesis of new flame-retardants by radical chain transfer copolymerization of glycidyl methacrylate and dimethoxy-phosphorylmethyl methacrylate. European Polymer Journal, 2014, 57, 109-120.	5.4	21
44	Reactive compatibilization of polymer blends by Î³â€irradiation: Influence of the order of processing steps. Journal of Applied Polymer Science, 2010, 115, 1710-1717.	2.6	20
45	Toward the cottonization of hemp fibers by steam explosion. Flame-retardant fibers. Industrial Crops and Products, 2020, 151, 112242.	5.2	20
46	Effect of magnesium dihydroxide nanoparticles on thermal degradation and flame resistance of PMMA nanocomposites. Polymers for Advanced Technologies, 2011, 22, 1713-1719.	3.2	19
47	Influence of a treated kaolinite on the thermal degradation and flame retardancy of poly(methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 1	5.2	19
48	Influence of the morphology on the fire behavior of a polycarbonate/poly(butylene terephthalate) blend. Journal of Applied Polymer Science, 2012, 125, 3148-3158.	2.6	19
49	FTIRâ€"PCFC coupling: A new method for studying the combustion of polymers. Combustion and Flame, 2014, 161, 1398-1407.	5.2	19
50	New Insights into the Investigation of Smoke Production Using a Cone Calorimeter. Fire Technology, 2019, 55, 853-873.	3.0	19
51	Renewable phosphorous-based flame retardant for lignocellulosic fibers. Industrial Crops and Products, 2022, 186, 115265.	5.2	19
52	Influence of carbon nanotubes on fire behaviour and aerosol emitted during combustion of thermoplastics. Fire and Materials, 2014, 38, 46-62.	2.0	17
53	Influence of multiwall carbon nanotube (MWCNT) dispersion on ignition of poly(dimethylsiloxane)â€"MWCNT composites. Polymers for Advanced Technologies, 2015, 26, 277-286.	3.2	17
54	Dynamic rheological studies and applicability of timeâ€"temperature superposition principle for PA12/SEBS-g-MA blends. Polymer Bulletin, 2015, 72, 3305-3324.	3.3	17

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55	Improving the resistance to hydrothermal ageing of flame-retarded PLA by incorporating miscible PMMA. Polymer Degradation and Stability, 2018, 155, 52-66.	5.8	17
56	Influence of different parameters in the fire behaviour of seven hardwood species. Fire Safety Journal, 2019, 107, 193-201.	3.1	17
57	Fire Behavior of Thermally Thin Materials in Cone Calorimeter. Polymers, 2021, 13, 1297.	4.5	17
58	Comparison of alumina and boehmite in (APP/MPP/metal oxide) ternary systems on the thermal and fire behavior of PMMA. Polymers for Advanced Technologies, 2012, 23, 1369-1380.	3.2	16
59	Barrier effect of flame retardant systems in poly(methyl methacrylate): Study of the efficiency of the surface treatment by octylsilane of silica nanoparticles in combination with phosphorous fire retardant additives. Fire and Materials, 2012, 36, 590-602.	2.0	16
60	The influence of dispersion and distribution of ultrafine kaolinite in polyamide-6 on the mechanical properties and fire retardancy. Applied Clay Science, 2015, 116-117, 8-15.	5.2	16
61	A method to study the two-step decomposition of binary blends in cone calorimeter. Combustion and Flame, 2016, 169, 1-10.	5.2	16
62	New alginate foams: Boxâ€Behnken design of their manufacturing; fire retardant and thermal insulating properties. Journal of Applied Polymer Science, 2018, 135, 45868.	2.6	16
63	Nanocomposites of polypropylene/polyamide 6 blends based on three different nanoclays: thermal stability and flame retardancy. Polimery, 2013, 58, 350-360.	0.7	16
64	Influence of organophosphorous silica precursor on the thermal and fire behaviour of a PA66/PA6 copolymer. Polymer Degradation and Stability, 2015, 115, 117-128.	5.8	15
65	Ethylene-vinyl acetate copolymer/aluminium trihydroxide composites: A new method to predict the barrier effect during cone calorimeter tests. Polymer Degradation and Stability, 2015, 120, 23-31.	5.8	15
66	Thermal degradation and flammability of polyamide 11 filled with nanoboehmite. Journal of Thermal Analysis and Calorimetry, 2017, 129, 1029-1037.	3.6	14
67	Radiation-grafting of flame retardants on flax fabrics â€" A comparison between different flame retardant structures. Radiation Physics and Chemistry, 2018, 145, 135-142.	2.8	14
68	Fire behavior of innovative alginate foams. Carbohydrate Polymers, 2020, 250, 116910.	10.2	14
69	Flame Retardant-Functionalized Cotton Cellulose Using Phosphonate-Based Ionic Liquids. Molecules, 2020, 25, 1629.	3.8	14
70	Synthesis of reactive phosphorus-based carbonate for flame retardant polyhydroxyurethane foams. Polymer Degradation and Stability, 2022, 202, 110031.	5.8	14
71	Controlled Emissivity Coatings to Delay Ignition of Polyethylene. Materials, 2015, 8, 6935-6949.	2.9	13
72	Influence of monomer reactivity on radiation grafting of phosphorus flame retardants on flax fabrics. Polymer Degradation and Stability, 2019, 166, 86-98.	5.8	13

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73	Tripleâ€faced polypropylene: Fire retardant, thermally stable, and antioxidative. Journal of Vinyl and Additive Technology, 2019, 25, 366-376.	3.4	13
74	Suitability and Modification of Different Renewable Materials as Feedstock for Sustainable Flame Retardants. Molecules, 2020, 25, 5122.	3.8	13
75	Halloysite nanotubes (HNTs)/polymer nanocomposites: thermal degradation and flame retardancy. , 2020, , 67-93.		13
76	Layer-by-layer polymer deposited fabrics with superior flame retardancy and electrical conductivity. Reactive and Functional Polymers, 2022, 173, 105221.	4.1	13
77	Efficiency of wollastonite and ammonium polyphosphate combinations on flame retardancy of polystyrene. Polymers for Advanced Technologies, 2013, 24, 104-113.	3.2	12
78	Influence of radiation-crosslinking on flame retarded polymer materialsâ€"How crosslinking disrupts the barrier effect. Radiation Physics and Chemistry, 2015, 106, 278-288.	2.8	12
79	Influence of lignocellulosic substrate and phosphorus flame retardant type on grafting yield and flame retardancy. Reactive and Functional Polymers, 2020, 153, 104612.	4.1	12
80	Synthesis of polyphosphorinanes Part II. Preparation, characterization and thermal properties of novel flame retardants. Polymer Chemistry, 2011, 2, 236-243.	3.9	11
81	Incorporation of elastomer into poly(ether ether ketone): an attempt to improve the damping factor. High Performance Polymers, 2014, 26, 986-996.	1.8	11
82	Influence of microstructure and flexibility of maleated styrene-b-(ethylene-co-butylene)-b-styrene rubber on the mechanical properties of polyamide 12. Polymer Bulletin, 2014, 71, 1131-1152.	3.3	11
83	Influence of grammage on heat release rate of polypropylene fabrics. Journal of Fire Sciences, 2018, 36, 30-46.	2.0	11
84	CHAPTER 12. Flame Retardancy of Phosphorus-Containing Polymers. RSC Polymer Chemistry Series, 2014, , 252-270.	0.2	10
85	Non-isothermal crystallization kinetics and thermal behaviour of PA12/SEBS-g-MA blends. Bulletin of Materials Science, 2015, 38, 1315-1327.	1.7	10
86	Elaboration of light composite materials based on alginate and algal biomass for flame retardancy: preliminary tests. Journal of Materials Science, 2016, 51, 10035-10047.	3.7	10
87	Assessment of the protective effect of PMMA on water immersion ageing of flame retarded PLA/PMMA blends. Polymer Degradation and Stability, 2020, 174, 109104.	5.8	10
88	Thermal degradation of polyesters filled with magnesium dihydroxide and magnesium oxide. Fire and Materials, 2016, 40, 445-463.	2.0	9
89	Effect of phosphorous-modified silica on the flame retardancy of polybutylene terephthalate based nanocomposites. Polymer Degradation and Stability, 2017, 143, 74-84.	5.8	9
90	Synthesis of new ionic liquid-grafted metal-oxo nanoclusters â€" Design of nanostructured hybrid organic-inorganic polymer networks. Polymer, 2021, 224, 123721.	3.8	9

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91	Studying the thermo-oxidative stability of chars using pyrolysis-combustion flow calorimetry. Polymer Degradation and Stability, 2016, 134, 340-348.	5.8	8
92	Exploring the Contribution of Two Phosphorus-Based Groups to Polymer Flammability via Pyrolysisâ€“Combustion Flow Calorimetry. Materials, 2019, 12, 2961.	2.9	8
93	Chemical treatments of flax fibers â€“ Control of the diffusion of molecules into the fiber structure. Industrial Crops and Products, 2019, 132, 430-439.	5.2	8
94	Biobased Flame Retardants. Springer Briefs in Molecular Science, 2018, , 33-72.	0.1	7
95	Flame retardancy of flax fibers by pre-irradiation grafting of a phosphonate monomer. Industrial Crops and Products, 2022, 176, 114334.	5.2	7
96	Influence of Density on Foam Collapse under Burning. Polymers, 2021, 13, 13.	4.5	6
97	Novel Foaming-Agent Free Insulating Geopolymer Based on Industrial Fly Ash and Rice Husk. Molecules, 2022, 27, 531.	3.8	6
98	Fire behaviour of hemp, clay and gypsum-based light biobased concretes and renders. Construction and Building Materials, 2022, 331, 127230.	7.2	6
99	Selective dispersion of nanoplatelets of MDH in a HDPE/PBT binary blend: Effect on flame retardancy. Polymer Degradation and Stability, 2016, 126, 107-116.	5.8	5
100	Study of gases released under incomplete combustion using PCFCâ€“FTIR. Journal of Thermal Analysis and Calorimetry, 2019, 138, 753-763.	3.6	5
101	Flame retardancy of wood-plastic composites by radiation-curing phosphorus-containing resins. Radiation Physics and Chemistry, 2020, 170, 108547.	2.8	5
102	Controlling interfacial interactions in LDPE/flax fibre biocomposites by a combined chemical and radiation-induced grafting approach. Cellulose, 2020, 27, 6333-6351.	4.9	5
103	Ignition and Charring of PVC-Based Electric Cables. Fire Technology, 2022, 58, 689-707.	3.0	5
104	A method to quantitatively assess the modes-of-action of flame-retardants. Polymer Degradation and Stability, 2021, 195, 109767.	5.8	5
105	Flame Retardancy of Natural Fibers Reinforced Composites. Springer Briefs in Molecular Science, 2018, , 73-98.	0.1	4
106	Fire behavior of lead-containing PMMA based Kyowaglas. Polymer Degradation and Stability, 2021, 190, 109618.	5.8	4
107	Incorporation of Organomodified Layered Silicates and Silica in Thermoplastic Elastomers in Order to Improve Tear Strength. Materials Science Forum, 0, 714, 217-227.	0.3	3
108	An Insight into the Flammability of Some Bio-Based Polyesters. Polymers, 2017, 9, 706.	4.5	2

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109	Flame Retardant Biobased Polymers. Springer Briefs in Molecular Science, 2018, , 1-32.	0.1	2
110	Assessment of olive pomace wastes as flame retardants. Journal of Applied Polymer Science, 2020, 137, 47715.	2.6	1
111	Microscale forced combustion: Pyrolysis-combustion flow calorimetry (PCFC). , 2022, , 91-116.		1
112	Correlation between laboratory- and real-scale fire analyses. , 2022, , 333-379.		1