Federico Carosio

List of Publications by Year
in descending order

103 papers	7,276 citations	61687 45 h-index	62345 84 g-index
105 all docs	105 docs citations	105 times ranked	5624 citing authors

#	Article	IF	Citations
1	Recyclable nanocomposites of well-dispersed 2D layered silicates in cellulose nanofibril (CNF) matrix. Carbohydrate Polymers, 2022, 279, 119004.	5.1	17
2	Charge Regulated Diffusion of Silica Nanoparticles into Wood for Flame Retardant Transparent Wood. Advanced Sustainable Systems, 2022, 6, .	2.7	19
3	Impact of polymeric stabilisers on the reaction kinetics of SrBr2. Solar Energy Materials and Solar Cells, 2022, 238, 111648.	3.0	9
4	A statistical approach to the development of flame retardant and mechanically strong natural fibers biocomposites. Polymer Degradation and Stability, 2022, 201, 109991.	2.7	3
5	The use of model cellulose gel beads to clarify flame-retardant characteristics of layer-by-layer nanocoatings. Carbohydrate Polymers, 2021, 255, 117468.	5.1	15
6	Green and Fire Resistant Nanocellulose/Hemicellulose/Clay Foams. Advanced Materials Interfaces, 2021, 8, 2101111.	1.9	13
7	Silica-encapsulated red phosphorus for flame retardant treatment on textile. Surfaces and Interfaces, 2021, 25, 101252.	1.5	13
8	Polyelectrolyte-Assisted Dispersions of Reduced Graphite Oxide Nanoplates in Water and Their Gas-Barrier Application. ACS Applied Materials & Interfaces, 2021, 13, 43301-43313.	4.0	7
9	Bench-scale fire stability testing â€“ Assessment of protective systems on carbon fibre reinforced polymer composites. Polymer Testing, 2021, 102, 107340.	2.3	4
10	A facile approach for the development of high mechanical strength 3D neuronal network scaffold based on chitosan and graphite nanoplatelets. Carbohydrate Polymers, 2021, 271, 118420.	5.1	12
11	Effects of Graphite Oxide Nanoparticle Size on the Functional Properties of Layer-by-Layer Coated Flexible Foams. Nanomaterials, 2021, 11, 266.	1.9	23
12	In Situ Assembly of DNA/Graphene Oxide Nanoplates to Reduce the Fire Threat of Flexible Foams. Advanced Materials Interfaces, 2021, 8, 2101083.	1.9	14
13	Polyamidoamines Derived from Natural Î±-Amino Acids as Effective Flame Retardants for Cotton. Polymers, 2021, 13, 3714.	2.0	13
14	Recent Advances in Multi-Functional Coatings for Soft Magnetic Composites. Materials, 2021, 14, 6844.	1.3	22
15	Polyelectrolyte-Coated Mesoporous Bioactive Glasses via Layer-by-Layer Deposition for Sustained Co-Delivery of Therapeutic Ions and Drugs. Pharmaceutics, 2021, 13, 1952.	2.0	10
16	The Thermo-Oxidative Behavior of Cotton Coated with an Intumescent Flame Retardant Glycine-Derived Polyamidoamine: A Multi-Technique Study. Polymers, 2021, 13, 4382.	2.0	11
17	Rapid Characterization Method for SMC Materials for a Preliminary Selection. Applied Sciences (Switzerland), 2021, 11, 12133.	1.3	7
18	Layer-by-layer modified low density cellulose fiber networks: A sustainable and fireproof alternative to petroleum based foams. Carbohydrate Polymers, 2020, 230, 115616.	5.1	21

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19	Ice-templated nanocellulose porous structure enhances thermochemical storage kinetics in hydrated salt/graphite composites. Renewable Energy, 2020, 160, 698-706.	4.3	32
20	Strong reinforcement effects in 2D cellulose nanofibrilâ€“graphene oxide (CNFâ€“GO) nanocomposites due to GO-induced CNF ordering. Journal of Materials Chemistry A, 2020, 8, 17608-17620.	5.2	31
21	Assembly of chitosan-graphite oxide nanoplatelets core shell microparticles for advanced 3D scaffolds supporting neuronal networks growth. Colloids and Surfaces B: Biointerfaces, 2020, 196, 111295.	2.5	13
22	Layer-by-Layer nanostructured interphase produces mechanically strong and flame retardant bio-composites. Composites Part B: Engineering, 2020, 200, 108310.	5.9	38
23	Graphite oxide nanocoatings as a sustaibale route to extend the applicability of biopolymer-based film. Applied Surface Science, 2020, 522, 146471.	3.1	11
24	A Technology Platform For the Sustainable Recovery and Advanced Use of Nanostructured Cellulose from Agri-Food Residues (PANACEA Project). , 2020, 69, .		0
25	Recyclable nanocomposite foams of Poly(vinyl alcohol), clay and cellulose nanofibrils â€“ Mechanical properties and flame retardancy. Composites Science and Technology, 2019, 182, 107762.	3.8	19
26	Improving Mechanical Properties and Reaction to Fire of EVA/LLDPE Blends for Cable Applications with Melamine Triazine and Bentonite Clay. Materials, 2019, 12, 2393.	1.3	17
27	Superior flame retardancy of cotton by synergetic effect of cellulose-derived nano-graphene oxide carbon dots and disulphide-containing polyamidoamines. Polymer Degradation and Stability, 2019, 169, 108993.	2.7	27
28	Nanocomposites from Clay, Cellulose Nanofibrils, and Epoxy with Improved Moisture Stability for Coatings and Semistructural Applications. ACS Applied Nano Materials, 2019, 2, 3117-3126.	2.4	24
29	New bio-based phosphorylated chitosan/alginate protective coatings on aluminum alloy obtained by the LbL technique. Surfaces and Interfaces, 2019, 16, 59-66.	1.5	21
30	Three Organic/Inorganic Nanolayers on Flexible Foam Allow Retaining Superior Flame Retardancy Performance Upon Mechanical Compression Cycles. Frontiers in Materials, 2019, 6, .	1.2	25
31	Hydrated Salt/Graphite/Polyelectrolyte Organic-Inorganic Hybrids for Efficient Thermochemical Storage. Nanomaterials, 2019, 9, 420.	1.9	24
32	Sulfur-Based Copolymeric Polyamidoamines as Efficient Flame-Retardants for Cotton. Polymers, 2019, 11, 1904.	2.0	11
33	Linear polyamidoamines as novel biocompatible phosphorus-free surface-confined intumescent flame retardants for cotton fabrics. Polymer Degradation and Stability, 2018, 151, 52-64.	2.7	51
34	All-natural and highly flame-resistant freeze-cast foams based on phosphorylated cellulose nanofibrils. Nanoscale, 2018, 10, 4085-4095.	2.8	87
35	Ring opening metathesis polymerization (ROMP) and thioâ€bromo â€œclickâ€•chemistry approach toward the preparation of flameâ€retardant polymers. Journal of Polymer Science Part A, 2018, 56, 645-652.	2.5	10
36	Tailoring flame-retardancy and strength of papers via layer-by-layer treatment of cellulose fibers. Cellulose, 2018, 25, 2691-2709.	2.4	25

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37	Layer-by-layer assembly of efficient flame retardant coatings based on high aspect ratio graphene oxide and chitosan capable of preventing ignition of PU foam. Polymer Degradation and Stability, 2018, 152, 1-9.	2.7	92
38	Controlling the melt dripping of polyester fabrics by tuning the ionic strength of polyhedral oligomeric silsesquioxane and sodium montmorillonite coatings assembled through Layer by Layer. Journal of Colloid and Interface Science, 2018, 510, 142-151.	5.0	65
39	Graphene Oxide Exoskeleton to Produce Selfâ€Extinguishing, Nonignitable, and Flame Resistant Flexible Foams: A Mechanically Tough Alternative to Inorganic Aerogels. Advanced Materials Interfaces, 2018, 5, 1801288.	1.9	59
40	Layer-by-layer-assembled chitosan/phosphorylated cellulose nanofibrils as a bio-based and flame protecting nano-exoskeleton on PU foams. Carbohydrate Polymers, 2018, 202, 479-487.	5.1	64
41	Extreme Heat Shielding of Clay/Chitosan Nanobrick Wall on Flexible Foam. ACS Applied Materials & Interfaces, 2018, 10, 31686-31696.	4.0	81
42	Sustainable and High Performing Biocomposites with Chitosan/Sepiolite Layer-by-Layer Nanoengineered Interphases. ACS Sustainable Chemistry and Engineering, 2018, 6, 9601-9605.	3.2	42
43	Disulfide-containing polyamidoamines with remarkable flame retardant activity for cotton fabrics. Polymer Degradation and Stability, 2018, 156, 1-13.	2.7	43
44	Flame Retardant Multilayered Coatings on Acrylic Fabrics Prepared by One-Step Deposition of Chitosan/Montmorillonite Complexes. Fibers, 2018, 6, 36.	1.8	37
45	Tuning the Nanoscale Properties of Phosphorylated Cellulose Nanofibril-Based Thin Films To Achieve Highly Fire-Protecting Coatings for Flammable Solid Materials. ACS Applied Materials & Interfaces, 2018, 10, 32543-32555.	4.0	31
46	Layer by Layer-functionalized rice husk particles: A novel and sustainable solution for particleboard production. Materials Today Communications, 2017, 13, 92-101.	0.9	23
47	Nanostructured Wood Hybrids for Fire-Retardancy Prepared by Clay Impregnation into the Cell Wall. ACS Applied Materials & Interfaces, 2017, 9, 36154-36163.	4.0	175
48	Ultrastrong and flame-resistant freestanding films from nanocelluloses, self-assembled using a layer-by-layer approach. Applied Materials Today, 2017, 9, 229-239.	2.3	31
49	Superior Flame-Resistant Cellulose Nanofibril Aerogels Modified with Hybrid Layer-by-Layer Coatings. ACS Applied Materials & Interfaces, 2017, 9, 29082-29092.	4.0	99
50	Improving the Flame Retardant Efficiency of Layer by Layer Coatings Containing Deoxyribonucleic Acid by Post-Diffusion of Hydrotalcite Nanoparticles. Materials, 2017, 10, 709.	1.3	18
51	Recent Advances in the Design of Water Based-Flame Retardant Coatings for Polyester and Polyester-Cotton Blends. Polymers, 2016, 8, 357.	2.0	43
52	All-Inorganic Intumescent Nanocoating Containing Montmorillonite Nanoplatelets in Ammonium Polyphosphate Matrix Capable of Preventing Cotton Ignition. Polymers, 2016, 8, 430.	2.0	14
53	DNA Coatings from Byproducts: A Panacea for the Flame Retardancy of EVA, PP, ABS, PET, and PA6?. ACS Sustainable Chemistry and Engineering, 2016, 4, 3544-3551.	3.2	48
54	Extreme Thermal Shielding Effects in Nanopaper Based on Multilayers of Aligned Clay Nanoplatelets in Cellulose Nanofiber Matrix. Advanced Materials Interfaces, 2016, 3, 1600551.	1.9	30

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55	Influence of layer by layer coatings containing octapropylammonium polyhedral oligomeric silsesquioxane and ammonium polyphosphate on the thermal stability and flammability of acrylic fabrics. Journal of Analytical and Applied Pyrolysis, 2016, 119, 114-123.	2.6	34
56	Tuning the Nanocelluloseâ€"Borate Interaction To Achieve Highly Flame Retardant Hybrid Materials. Chemistry of Materials, 2016, 28, 1985-1989.	3.2	103
57	Ultra-Fast Layer-by-Layer Approach for Depositing Flame Retardant Coatings on Flexible PU Foams within Seconds. ACS Applied Materials & Interfaces, 2016, 8, 6315-6319.	4.0	97
58	Clay nanopaper as multifunctional brick and mortar fire protection coatingâ€"Wood case study. Materials and Design, 2016, 93, 357-363.	3.3	80
59	Starch-Based Layer by Layer Assembly: Efficient and Sustainable Approach to Cotton Fire Protection. ACS Applied Materials & Interfaces, 2015, 7, 12158-12167.	4.0	170
60	Layer by layer assembly of flame retardant thin films on closed cell PET foams: Efficiency of ammonium polyphosphate versus DNA. Polymer Degradation and Stability, 2015, 113, 189-196.	2.7	45
61	Oriented Clay Nanopaper from Biobased Componentsâ€"Mechanisms for Superior Fire Protection Properties. ACS Applied Materials & Interfaces, 2015, 7, 5847-5856.	4.0	108
62	All-polymer Layer by Layer coating as efficient solution to polyurethane foam flame retardancy. European Polymer Journal, 2015, 70, 94-103.	2.6	38
63	A Comparative Analysis of Nanoparticle Adsorption as Fire-Protection Approach for Fabrics. Polymers, 2015, 7, 47-68.	2.0	42
64	Phosphorylated Cellulose Nanofibrils: A Renewable Nanomaterial for the Preparation of Intrinsically Flame-Retardant Materials. Biomacromolecules, 2015, 16, 3399-3410.	2.6	267
65	How much the fabric grammage may affect cotton combustion?. Cellulose, 2015, 22, 3477-3489.	2.4	25
66	Flame-Retardant Paper from Wood Fibers Functionalized via Layer-by-Layer Assembly. ACS Applied Materials & Interfaces, 2015, 7, 23750-23759.	4.0	92
67	Few durable layers suppress cotton combustion due to the joint combination of layer by layer assembly and UV-curing. RSC Advances, 2015, 5, 71482-71490.	1.7	52
68	Tunable thermal and flame response of phosphonated oligoallylamines layer by layer assemblies on cotton. Carbohydrate Polymers, 2015, 115, 752-759.	5.1	42
69	Thermally insulating and fire-retardant lightweight anisotropic foams based on nanocellulose and graphene oxide. Nature Nanotechnology, 2015, 10, 277-283.	15.6	1,103
70	Caseins and hydrophobins as novel green flame retardants for cotton fabrics. Polymer Degradation and Stability, 2014, 99, 111-117.	2.7	218
71	Current emerging techniques to impart flame retardancy to fabrics: AnÂoverview. Polymer Degradation and Stability, 2014, 106, 138-149.	2.7	240
72	Self-assembled hybrid nanoarchitectures deposited on poly(urethane) foams capable of chemically adapting to extreme heat. RSC Advances, 2014, 4, 16674-16680.	1.7	39

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73	Biomacromolecules as novel green flame retardant systems for textiles: an overview. RSC Advances, 2014, 4, 46024-46039.	1.7	142
74	Materials engineering for surface-confined flame retardancy. Materials Science and Engineering Reports, 2014, 84, 1-20.	14.8	139
75	Intumescent features of nucleic acids and proteins. Thermochimica Acta, 2014, 591, 31-39.	1.2	63
76	Efficient Gas and Water Vapor Barrier Properties of Thin Poly(lactic acid) Packaging Films: Functionalization with Moisture Resistant Nafion and Clay Multilayers. Chemistry of Materials, 2014, 26, 5459-5466.	3.2	94
77	Bulk or surface treatments of ethylene vinyl acetate copolymers with DNA: Investigation on the flame retardant properties. European Polymer Journal, 2014, 51, 112-119.	2.6	60
78	Flame Retardancy of Polyester and Polyesterâ€"Cotton Blends Treated with Caseins. Industrial & Engineering Chemistry Research, 2014, 53, 3917-3923.	1.8	122
79	UV-cured hybrid organicâ€"inorganic Layer by Layer assemblies: Effect on the flame retardancy of polycarbonate films. Polymer Degradation and Stability, 2014, 107, 74-81.	2.7	47
80	Flame Retardant Properties of Ethylene Vinyl Acetate Copolymers Melt-Compounded with Deoxyribonucleic Acid in the Presence of α-cellulose or β-cyclodextrins. Current Organic Chemistry, 2014, 18, 1651-1660.	0.9	13
81	Thermal stability and flame retardancy of polyester fabrics solâ€"gel treated in the presence of boehmite nanoparticles. Polymer Degradation and Stability, 2013, 98, 1609-1616.	2.7	51
82	Green DNA-based flame retardant coatings assembled through Layer by Layer. Polymer, 2013, 54, 5148-5153.	1.8	183
83	Layer by Layer coatings assembled through dipping, vertical or horizontal spray for cotton flame retardancy. Carbohydrate Polymers, 2013, 92, 114-119.	5.1	83
84	A dielectric study on colloidal silica nanoparticle Layer-by-Layer assemblies on polycarbonate. Journal of Colloid and Interface Science, 2013, 408, 252-255.	5.0	2
85	Layer by layer nanoarchitectures for the surface protection of polycarbonate. European Polymer Journal, 2013, 49, 397-404.	2.6	45
86	Flame Retardancy of Polyester Fabrics Treated by Spray-Assisted Layer-by-Layer Silica Architectures. Industrial & Engineering Chemistry Research, 2013, 52, 9544-9550.	1.8	71
87	Phosphonated oligoallylamine: Synthesis, characterization in water, and development of layer by layer assembly. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1244-1251.	2.4	15
88	Flammability and combustion properties of ammonium polyphosphate-/poly(acrylic acid)- based layer by layer architectures deposited on cotton, polyester and their blends. Polymer Degradation and Stability, 2013, 98, 1626-1637.	2.7	71
89	DNA: a novel, green, natural flame retardant and suppressant for cotton. Journal of Materials Chemistry A, 2013, 1, 4779.	5.2	259
90	Intrinsic intumescent-like flame retardant properties of DNA-treated cotton fabrics. Carbohydrate Polymers, 2013, 96, 296-304.	5.1	168

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91	Permeation Behavior of Polysulfone Membranes Modified by Fully Organic Layer-by-Layer Assemblies. Industrial & Engineering Chemistry Research, 2013, 52, 16406-16413.	1.8	16
92	Influence of ammonium polyphosphate-/poly(acrylic acid)-based layer by layer architectures on the char formation in cotton, polyester and their blends. Polymer Degradation and Stability, 2012, 97, 1644-1653.	2.7	84
93	Textile Flame Retardancy Through Surface-Assembled Nanoarchitectures. ACS Symposium Series, 2012, , 327-341.	0.5	1
94	Layer by layer complex architectures based on ammonium polyphosphate, chitosan and silica on polyester-cotton blends: flammability and combustion behaviour. Cellulose, 2012, 19, 1041-1050.	2.4	129
95	Layer by Layer ammonium polyphosphate-based coatings for flame retardancy of polyesterâ€"cotton blends. Carbohydrate Polymers, 2012, 88, 1460-1469.	5.1	196
96	Î±-Zirconium phosphate-based nanoarchitectures on polyester fabrics through layer-by-layer assembly. Journal of Materials Chemistry, 2011, 21, 10370.	6.7	113
97	Layer-by-layer assembly of silica-based flame retardant thin film on PET fabric. Polymer Degradation and Stability, 2011, 96, 745-750.	2.7	215
98	Optimization of the procedure to burn textile fabrics by cone calorimeter: Part I. Combustion behavior of polyester. Fire and Materials, 2011, 35, 397-409.	0.9	97
99	Thermal stability and flame retardancy of polyester, cotton, and relative blend textile fabrics subjected to solâ€"gel treatments. Journal of Applied Polymer Science, 2011, 119, 1961-1969.	1.3	118
100	Influence of surface activation by plasma and nanoparticle adsorption on the morphology, thermal stability and combustion behavior of PET fabrics. European Polymer Journal, 2011, 47, 893-902.	2.6	73
101	Growth and fire resistance of colloidal silica-polyelectrolyte thin film assemblies. Journal of Colloid and Interface Science, 2011, 356, 69-77.	5.0	109
102	Polypropylene-based ferromagnetic composites. Polymer Bulletin, 2010, 65, 681-689.	1.7	5
103	Rapidly Prepared Nanocellulose Hybrids as Gas Barrier, Flame Retardant, and Energy Storage Materials. ACS Applied Nano Materials, 0, , .	2.4	2