Yves Leterrier

List of Publications by Year
in descending order

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121 papers	4,633 citations	117571 34 h-index	114418 63 g-index
122 all docs	122 docs citations	122 times ranked	4461 citing authors

#	Article	IF	Citations
1	Durability of nanosized oxygen-barrier coatings on polymers. Progress in Materials Science, 2003, 48, 1-55.	16.0	467
2	Mechanical integrity of transparent conductive oxide films for flexible polymer-based displays. Thin Solid Films, 2004, 460, 156-166.	0.8	432
3	Life cycle assessment of biofibres replacing glass fibres as reinforcement in plastics. Resources, Conservation and Recycling, 2001, 33, 267-287.	5.3	314
4	Adhesion of silicon oxide layers on poly(ethylene terephthalate). I: Effect of substrate properties on coating's fragmentation process. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 1449-1461.	2.4	166
5	Adhesion of silicon oxide layers on poly (ethylene terephthalate). II: Effect of coating thickness on adhesive and cohesive strengths. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 1463-1472.	2.4	134
6	Reactive processing of poly(ethylene terephthalate) modified with multifunctional epoxy-based additives. Polymer, 2000, 41, 5809-5818.	1.8	119
7	The evolution of material properties during physical aging. Polymer Engineering and Science, 1995, 35, 403-410.	1.5	104
8	Novel pulp fibre reinforced thermoplastic composites. Composites Science and Technology, 2003, 63, 137-152.	3.8	98
9	UV intensity, temperature and dark-curing effects in cationic photo-polymerization of a cycloaliphatic epoxy resin. Polymer, 2012, 53, 2038-2048.	1.8	92
10	Hyperbranched Polymer Layered Silicate Nanocomposites. Chemistry of Materials, 2002, 14, 486-488.	3.2	81
11	Mechanical analysis of ultrathin oxide coatings on polymer substrates in situ in a scanning electron microscope. Thin Solid Films, 2003, 437, 204-210.	0.8	71
12	Hyperbranched polymer/montmorillonite clay nanocomposites. Polymer, 2004, 45, 949-960.	1.8	71
13	The effect of processing conditions on the morphology, thermomechanical, dielectric, and piezoelectric properties of P(VDF-TrFE)/BaTiO3 composites. Journal of Materials Science, 2012, 47, 4763-4774.	1.7	68
14	Magnetic Properties of Nanocomposites. Applied Sciences (Switzerland), 2019, 9, 212.	1.3	62
15	Process influences on the structure, piezoelectric, and gasâ€barrier properties of PVDFâ€TrFE copolymer. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 496-506.	2.4	61
16	Lab-on-a-chip for multiplexed biosensing of residual antibiotics in milk. Lab on A Chip, 2009, 9, 1625.	3.1	56
17	Effect of silane coupling agent on the morphology, structure, and properties of poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock	1.7	54
18	Mechanical integrity of thin inorganic coatings on polymer substrates under quasi-static, thermal and fatigue loadings. Thin Solid Films, 2010, 519, 1729-1737.	0.8	53

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19	Evaluation of interfacial stress transfer efficiency by coating fragmentation test. Mechanics of Materials, 2007, 39, 834-844.	1.7	52
20	Immobilized Polymer Fraction in Hyperbranched Polymer/Silica Nanocomposite Suspensions. Macromolecules, 2010, 43, 10490-10497.	2.2	52
21	Recycling of poly(ethylene terephthalate) into closed-cell foams. Polymer Engineering and Science, 2000, 40, 1942-1952.	1.5	51
22	Evaluation of thin film adhesion to a compliant substrate by the analysis of progressive buckling in the fragmentation test. Thin Solid Films, 2009, 517, 2007-2011.	0.8	50
23	Fe3O4 nanoparticles and nanocomposites with potential application in biomedicine and in communication technologies: Nanoparticle aggregation, interaction, and effective magnetic anisotropy. Journal of Applied Physics, 2014, 116, .	1.1	50
24	Mechanical properties of SiOx gas barrier coatings on polyester films. Surface and Coatings Technology, 2008, 202, 3529-3537.	2.2	49
25	Molecular characterization and rheological properties of modified poly(ethylene terephthalate) obtained by reactive extrusion. Polymer Engineering and Science, 2001, 41, 1299-1309.	1.5	48
26	Prediction of the adhesive fillet size for skin to honeycomb core bonding in ultra-light sandwich structures. Composites Part A: Applied Science and Manufacturing, 2008, 39, 1547-1555.	3.8	48
27	Modeling of multiple cracking and decohesion of a thin film on a polymer substrate. Engineering Fracture Mechanics, 2006, 73, 2614-2626.	2.0	47
28	Ultra-thin hybrid organic/inorganic gas barrier coatings on polymers. Surface and Coatings Technology, 2007, 201, 7107-7114.	2.2	45
29	Rheological Behavior of Concentrated Hyperbranched Polymer/Silica Nanocomposite Suspensions. Macromolecules, 2010, 43, 7705-7712.	2.2	45
30	UV-nanoimprint lithography and large area roll-to-roll texturization with hyperbranched polymer nanocomposites for light-trapping applications. Solar Energy Materials and Solar Cells, 2012, 103, 147-156.	3.0	43
31	Electrically conductive self-healing polymer composite coatings. Progress in Organic Coatings, 2015, 85, 189-198.	1.9	41
32	Macroporous Epoxy Networks via Chemically Induced Phase Separation. Macromolecules, 1996, 29, 4158-4160.	2.2	40
33	Uniformly Dispersed Poly(lactic acid)-Grafted Lignin Nanoparticles Enhance Antioxidant Activity and UV-Barrier Properties of Poly(lactic acid) Packaging Films. ACS Applied Polymer Materials, 2022, 4, 4808-4817.	2.0	39
34	Evaluation of toughness by finite fracture mechanics from crack onset strain of brittle coatings on polymers. Theoretical and Applied Fracture Mechanics, 2008, 49, 151-157.	2.1	38
35	Time-intensity transformation and internal stress in UV-curable hyperbranched acrylates. Rheologica Acta, 2007, 46, 693-701.	1.1	36
36	Mechanical integrity of dye-sensitized photovoltaic fibers. Renewable Energy, 2008, 33, 314-319.	4.3	36

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37	UV-cured transparent magnetic polymer nanocomposites. Polymer, 2013, 54, 4472-4479.	1.8	33
38	Photorheology of Fast UV-Curing Multifunctional Acrylates. Macromolecular Materials and Engineering, 2005, 290, 1115-1124.	1.7	32
39	Cohesive and adhesive properties of polycaprolactone/silica hybrid coatings on poly(methyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	2.2	32
40	Sustainable polyesters via direct functionalization of lignocellulosic sugars. Nature Chemistry, 2022, 14, 976-984.	6.6	32
41	Formation and elimination of voids during the processing of thermoplastic of matrix composites. Polymer Composites, 1994, 15, 101-105.	2.3	30
42	Estimation of interfacial fracture toughness based on progressive edge delamination of a thin transparent coating on a polymer substrate. Acta Materialia, 2010, 58, 2948-2956.	3.8	30
43	Internal stresses and adhesion of thin silicon oxide coatings on poly(ethylene terephthalate). Journal of Adhesion Science and Technology, 2001, 15, 841-865.	1.4	29
44	Calculation of adhesive and cohesive fracture toughness of a thin brittle coating on a polymer substrate. Thin Solid Films, 2006, 515, 2097-2105.	0.8	29
45	Modelling the effect of temperature on crack onset strain of brittle coatings on polymer substrates. Thin Solid Films, 2011, 519, 4249-4255.	0.8	29
46	UVâ€cured cellulose nanofiber composites with moisture durable oxygen barrier properties. Journal of Applied Polymer Science, 2014, 131, .	1.3	28
47	Graded-permittivity polymer nanocomposites as superior dielectrics. Composites Science and Technology, 2016, 129, 1-9.	3.8	28
48	Stress Transfer Model for Single Fibre and Platelet Composites. Journal of Composite Materials, 1999, 33, 1525-1543.	1.2	27
49	Acrylated hyperbranched polymer photoresist for ultra-thick and low-stress high aspect ratio micropatterns. Journal of Micromechanics and Microengineering, 2008, 18, 045022.	1.5	27
50	Ultra-light asymmetric photovoltaic sandwich structures. Composites Part A: Applied Science and Manufacturing, 2009, 40, 1167-1173.	3.8	27
51	Two scaling domains in multiple cracking phenomena. Physical Review E, 2000, 62, 7807-7810.	0.8	26
52	Stress controlled gas-barrier oxide coatings on semi-crystalline polymers. Thin Solid Films, 2005, 484, 94-99.	0.8	26
53	Influence of substrate additives on the mechanical properties of ultrathin oxide coatings on poly(ethylene terephthalate). Surface and Coatings Technology, 2005, 200, 2236-2242.	2.2	25
54	Cohesion and adhesion of nanoporous TiO2 coatings on titanium wires for photovoltaic applications. Thin Solid Films, 2008, 516, 1913-1919.	0.8	25

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55	Conversion and shrinkage analysis of acrylated hyperbranched polymer nanocomposites. Journal of Applied Polymer Science, 2009, 114, 1954-1963.	1.3	25
56	Analysis of the initial fragmentation stage of oxide coatings on polymer substrates under biaxial tension. Thin Solid Films, 2003, 434, 203-215.	0.8	24
57	Intrinsic, thermal and hygroscopic residual stresses in thin gas-barrier films on polymer substrates. Thin Solid Films, 2007, 515, 7437-7441.	0.8	24
58	Mechanical failure analysis of thin film transistor devices on steel and polyimide substrates for flexible display applications. Engineering Fracture Mechanics, 2010, 77, 660-670.	2.0	24
59	Self-cleaning and wear-resistant polymer nanocomposite surfaces. Surface and Coatings Technology, 2018, 348, 111-120.	2.2	24
60	Design and fabrication of compositionally graded inorganic oxide thin films: Mechanical, optical and permeation characteristics. Acta Materialia, 2010, 58, 6495-6503.	3.8	23
61	The Influence of Internal Stresses on the Microbond Test II: Physical Aging and Adhesion. Journal of Composite Materials, 2002, 36, 1655-1676.	1.2	22
62	Conversion analysis of acrylated hyperbranched polymers UV-cured below their ultimate glass transition temperature. Journal of Applied Polymer Science, 2007, 104, 2366-2376.	1.3	22
63	Effect of inclusions and blending on the mechanical performance of recycled multilayer PP/PET/SiOx films. Journal of Applied Polymer Science, 2000, 78, 910-918.	1.3	21
64	Oxygen permeation, mechanical and structural properties of multilayer diffusion barrier coatings on polypropylene. Journal Physics D: Applied Physics, 2010, 43, 115301.	1.3	21
65	The Influence of Internal Stresses on the Microbond Test â€“ I: Theoretical Analysis. Journal of Composite Materials, 2002, 36, 347-363.	1.2	19
66	Effect of interfacial interactions on the electromechanical response of poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (fluo Science and Technology, 2015, 114, 103-109.	3.8	19
67	Compression behavior of pulp fiber networks. Polymer Engineering and Science, 2004, 44, 45-55.	1.5	18
68	A fast low-temperature micromolding process for hydrophilic microfluidic devices using UV-curable acrylated hyperbranched polymers. Journal of Micromechanics and Microengineering, 2007, 17, 1147-1153.	1.5	18
69	Electro-fragmentation analysis of dielectric thin films on flexible polymer substrates. Thin Solid Films, 2009, 517, 2000-2006.	0.8	18
70	Improved mechanical dispersion or use of coupling agents? Advantages and disadvantages for the properties of fluoropolymer/ceramic composites. Polymer, 2018, 154, 8-16.	1.8	18
71	Rheological properties of hyperbranched polymer/poly(ethylene terephthalate) reactive blends. Polymer Engineering and Science, 2003, 43, 329-343.	1.5	17
72	Time-intensity superposition for photoinitiated polymerization of fluorinated and hyperbranched acrylate nanocomposites. Polymer, 2010, 51, 334-341.	1.8	17

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73	A Facile in Situ and UV Printing Process for Bioinspired Self-Cleaning Surfaces. Materials, 2016, 9, 738.	1.3	17
74	Advanced fragmentation stage of oxide coating on polymer substrate under biaxial tension. Thin Solid Films, 2005, 471, 209-217.	0.8	16
75	Electrofragmentation modeling of conductive coatings on polymer substrates. Journal of Applied Physics, 2009, 106, .	1.1	16
76	Lowâ€Stress Hyperbranched Polymer/Silica Nanostructures Produced by UV Curing, Sol/Gel Processing and Nanoimprint Lithography. Macromolecular Materials and Engineering, 2012, 297, 155-166.	1.7	16
77	A novel synthetic strategy for bioinspired functionally graded nanocomposites employing magnetic field gradients. RSC Advances, 2014, 4, 7246.	1.7	16
78	Antibacterial surfaces based on functionally graded photocatalytic Fe₃O₄@TiO₂ coreâ€“shell nanoparticle/epoxy composites. RSC Advances, 2015, 5, 105416-105421.	1.7	16
79	Durability of aminosilane-silica hybrid gas-barrier coatings on polymers. Surface and Coatings Technology, 2007, 202, 208-216.	2.2	15
80	Mechanical integrity analysis of multilayer insulator coatings on flexible steel substrates. Thin Solid Films, 2007, 515, 6890-6898.	0.8	15
81	Effect of substrate crystalline morphology on the adhesion of plasma enhanced chemical vapor deposited thin silicon oxide coatings on polyamide. Journal of Applied Physics, 2004, 95, 5429-5434.	1.1	14
82	Mechanical properties of carbon-modified silicon oxide barrier films deposited by plasma enhanced chemical vapor deposition on polymer substrates. Thin Solid Films, 2007, 515, 5430-5438.	0.8	14
83	Influence of Process Pressure on Local Facesheet Instability for Ultra-light Sandwich Structures. Journal of Sandwich Structures and Materials, 2009, 11, 293-311.	2.0	14
84	Adhesion study of SiOx / PET films: comparison between scratch test and fragmentation test. Journal of Adhesion Science and Technology, 1996, 10, 1047-1065.	1.4	13
85	An analysis of disorder in thin silicon oxide coatings. Europhysics Letters, 1999, 48, 280-285.	0.7	13
86	Supertough UV-curable silane/silica gas barrier coatings on polymers. Surface and Coatings Technology, 2009, 203, 3398-3404.	2.2	12
87	Influences of roll-to-roll process and polymer substrate anisotropies on the tensile failure of thin oxide films. Thin Solid Films, 2010, 518, 6984-6992.	0.8	12
88	Nanoimprint Lithography with UVâ€Curable Hyperbranched Polymer Nanocomposites. Macromolecular Symposia, 2010, 296, 144-153.	0.4	12
89	Multilayer plug flow modeling of the fast stamping process for a polypropylene/glass fiber composite. Polymer Composites, 1996, 17, 231-241.	2.3	11
90	The role of the amino-organosilane/SiOx interphase in the barrier and mechanical performance of nanocomposites. Surface and Coatings Technology, 2006, 200, 4305-4311.	2.2	11

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91	Stress reduction mechanisms during photopolymerization of functionally graded polymer nanocomposite coatings. Progress in Organic Coatings, 2015, 87, 204-212.	1.9	11
92	Photoresponsive Movement in 3D Printed Cellulose Nanocomposites. ACS Applied Materials & Interfaces, 2022, 14, 16703-16717.	4.0	11
93	Formation of aminosilane-oxide interphases. Composite Interfaces, 2006, 13, 573-588.	1.3	10
94	Models for saturation damage state and interfacial shear strengths in multilayer coatings. Mechanics of Materials, 2010, 42, 326-334.	1.7	10
95	Mechanical integrity of hybrid indium-free electrodes for flexible devices. Organic Electronics, 2016, 35, 136-141.	1.4	10
96	Alkali-methanol-anthraquinone pulping ofMiscanthus x giganteusfor thermoplastic composite reinforcement. Journal of Applied Polymer Science, 2004, 92, 2132-2143.	1.3	9
97	Superhard transparent hybrid nanocomposites for high fidelity UV-nanoimprint lithography. Polymer, 2013, 54, 6177-6183.	1.8	9
98	Organic-Inorganic Hybrid Planarization and Water Vapor Barrier Coatings on Cellulose Nanofibrils Substrates. Frontiers in Chemistry, 2018, 6, 571.	1.8	9
99	Valorization of Byproducts of Hemp Multipurpose Crop: Short Non-Aligned Bast Fibers as a Source of Nanocellulose. Molecules, 2021, 26, 4723.	1.7	9
100	Photocured Nanocellulose Composites: Recent Advances. ACS Sustainable Chemistry and Engineering, 2022, 10, 3131-3149.	3.2	9
101	Anisotropic magnetic polymer nanocomposite with self-assembled chains of titania-coated magnetite nanoparticles. Materials Today Communications, 2016, 7, 32-41.	0.9	8
102	Bio-Inspired Fluorine-Free Self-Cleaning Polymer Coatings. Coatings, 2018, 8, 436.	1.2	7
103	Interface-Dominated Time-Dependent Behavior of Poled Poly(Vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 262 Td (Fluori	1.3	7
104	Radical photoinduced cationic frontal polymerization in porous media. Polymer International, 2021, 70, 269-276.	1.6	7
105	Work of fragmentation of a thin oxide coating on a polymer film. Journal of Materials Science Letters, 1997, 16, 120-121.	0.5	6
106	Rheological behaviour of dilute suspensions of platelet particles. Rheologica Acta, 1999, 38, 437-442.	1.1	6
107	Durability in the life cycle of polymer composites. Journal of Applied Polymer Science, 1999, 73, 1427-1434.	1.3	4
108	Coating fragmentation by branching cracks at large biaxial strain. Probabilistic Engineering Mechanics, 2007, 22, 285-292.	1.3	4

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109	Effect of annealing and silylation on the strength of melt-spun Niâ€“Mnâ€“Ga fibres and their adhesion to epoxy. International Journal of Adhesion and Adhesives, 2014, 55, 89-94.	1.4	4
110	Superhard, Antireflective Texturized Coatings Based on Hyperbranched Polymer Composite Hybrids for Thinâ€Film Solar Cell Encapsulation. Energy Technology, 2015, 3, 366-372.	1.8	4
111	Adhesion of surgical sealants used in cardiothoracic and vascular surgery. International Journal of Adhesion and Adhesives, 2016, 70, 81-89.	1.4	4
112	The effect of defect location on coating fragmentation patterns under biaxial tension. Probabilistic Engineering Mechanics, 2005, 20, 103-108.	1.3	3
113	Dimensional stability analysis of a UV printed polymer microstructure for a novel glazing system. Energy Procedia, 2017, 122, 763-768.	1.8	3
114	Rheology of Layered Thermoplastic Matrix Composites during Compression Molding. International Polymer Processing, 1997, 12, 54-63.	0.3	2
115	Viscoelastic phase diagram of fluorinated and grafted polymer films and protonâ€exchange membranes for fuel cell applications. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1139-1148.	2.4	2
116	Evaluation of the interfacial shear strength between pseudoplastic NiTi shape memory alloy wires and epoxy by the pull-out method. Smart Materials and Structures, 2015, 24, 125038.	1.8	2
117	Influence of processing routes on morphology and low strain stiffness of polymer/nanofibrillated cellulose composites. Plastics, Rubber and Composites, 2015, 44, 81-86.	0.9	2
118	Surface modified microfibrillated celluloseâ€poly(vinylidene fluoride) composites: Î²â€phase formation, viscoelastic and dielectric performance. Polymer International, 2021, 70, 1316-1328.	1.6	2
119	Viscoelastic behavior of suspensions of reduced graphene oxide nanoparticles in epoxy. Applied Physics Letters, 2021, 119, .	1.5	2
120	Conformal thin film silicon photovoltaic modules. International Journal of Sustainable Energy, 2014, 33, 783-796.	1.3	1
121	High diffusion barrier and piezoelectric nanocomposites based on polyvinylidene fluorideâ€trifluoroethylene copolymer and hydrophobized clay. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 1828-1836.	2.4	1