

# Emiliano Bilotti

## List of Publications by Year in descending order

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85  
papers

4,114  
citations

117453

34  
h-index

118652

62  
g-index

87  
all docs

87  
docs citations

87  
times ranked

4574  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultra-high $\beta$ -phase content poly(vinylidene fluoride) with relaxor-like ferroelectricity for high energy density capacitors. <i>Nature Communications</i> , 2019, 10, 4535.	5.8	259
2	A Review on Functionally Graded Materials and Structures via Additive Manufacturing: From Multi-scale Design to Versatile Functional Properties. <i>Advanced Materials Technologies</i> , 2020, 5, 1900981.	3.0	230
3	Strain sensing behaviour of elastomeric composite films containing carbon nanotubes under cyclic loading. <i>Composites Science and Technology</i> , 2013, 74, 1-5.	3.8	221
4	Improved fracture toughness and integrated damage sensing capability by spray coated CNTs on carbon fibre prepreg. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 70, 102-110.	3.8	213
5	Toward Stretchable Self-powered Sensors Based on the Thermoelectric Response of PEDOT:PSS/Polyurethane Blends. <i>Advanced Functional Materials</i> , 2018, 28, 1704285.	7.8	171
6	Controlling the dynamic percolation of carbon nanotube based conductive polymer composites by addition of secondary nanofillers: The effect on electrical conductivity and tuneable sensing behaviour. <i>Composites Science and Technology</i> , 2013, 74, 85-90.	3.8	149
7	Fabrication and property prediction of conductive and strain sensing TPU/CNT nanocomposite fibres. <i>Journal of Materials Chemistry</i> , 2010, 20, 9449.	6.7	147
8	Influence of filler size on the properties of poly(lactic acid) (PLA)/graphene nanoplatelet (GNP) nanocomposites. <i>European Polymer Journal</i> , 2017, 86, 117-131.	2.6	137
9	Effect of melting and crystallization on the conductive network in conductive polymer composites. <i>Polymer</i> , 2009, 50, 3747-3754.	1.8	132
10	Additive manufacturing high performance graphene-based composites: A review. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 124, 105483.	3.8	121
11	The use of carbon nanotubes for damage sensing and structural health monitoring in laminated composites: a review. <i>Nanocomposites</i> , 2015, 1, 167-184.	2.2	119
12	Preparation of High-performance Conductive Polymer Fibers through Morphological Control of Networks Formed by Nanofillers. <i>Advanced Functional Materials</i> , 2010, 20, 1424-1432.	7.8	117
13	Nanoscale interfacial electroactivity in PVDF/PVDF-TrFE blended films with enhanced dielectric and ferroelectric properties. <i>Journal of Materials Chemistry C</i> , 2017, 5, 3296-3305.	2.7	110
14	Transparent semi-crystalline polymeric materials and their nanocomposites: A review. <i>Polymer Engineering and Science</i> , 2020, 60, 2351-2376.	1.5	98
15	Poly(lactic acid)/carbon nanotube nanocomposites with integrated degradation sensing. <i>Polymer</i> , 2013, 54, 6818-6823.	1.8	88
16	Multifunctional epoxy nanocomposites reinforced by two-dimensional materials: A review. <i>Carbon</i> , 2021, 185, 57-81.	5.4	88
17	Synergistic effects of spray-coated hybrid carbon nanoparticles for enhanced electrical and thermal surface conductivity of CFRP laminates. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 105, 9-18.	3.8	74
18	Giant energy storage density in PVDF with internal stress engineered polar nanostructures. <i>Nano Energy</i> , 2020, 72, 104662.	8.2	72

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19	Modified resistivity-strain behavior through the incorporation of metallic particles in conductive polymer composite fibers containing carbon nanotubes. <i>Polymer International</i> , 2013, 62, 134-140.	1.6	62
20	A Novel Concept for Highly Oriented Carbon Nanotube Composite Tapes or Fibres with High Strength and Electrical Conductivity. <i>Macromolecular Materials and Engineering</i> , 2009, 294, 749-755.	1.7	56
21	Thermal degradation and flammability behavior of polypropylene/clay/carbon nanotube composite systems. <i>Polymers for Advanced Technologies</i> , 2013, 24, 331-338.	1.6	53
22	Localized toughening of carbon/epoxy laminates using dissolvable thermoplastic interleaves and electrospun fibres. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 79, 116-126.	3.8	52
23	In Situ Exfoliation of Graphene in Epoxy Resins: A Facile Strategy to Efficient and Large Scale Graphene Nanocomposites. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 24112-24122.	4.0	52
24	Substitutional doping of hybrid organic-inorganic perovskite crystals for thermoelectrics. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13594-13599.	5.2	51
25	Filtration effects of graphene nanoplatelets in resin infusion processes: Problems and possible solutions. <i>Composites Science and Technology</i> , 2017, 139, 138-145.	3.8	48
26	Multiscale understanding of electric polarization in poly(vinylidene fluoride)-based ferroelectric polymers. <i>Journal of Materials Chemistry C</i> , 2020, 8, 16436-16442.	2.7	48
27	Preparation and properties of self-reinforced poly(lactic acid) composites based on oriented tapes. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 76, 145-153.	3.8	46
28	The Influence of Solid-State Drawing on Mechanical Properties and Hydrolytic Degradation of Melt-Spun Poly(Lactic Acid) (PLA) Tapes. <i>Fibers</i> , 2015, 3, 523-538.	1.8	45
29	Effect of particle size and shape on positive temperature coefficient (PTC) of conductive polymer composites (CPC) - a model study. <i>Materials and Design</i> , 2016, 97, 459-463.	3.3	44
30	Remarkably enhanced polarisability and breakdown strength in PVDF-based interactive polymer blends for advanced energy storage applications. <i>Polymer</i> , 2019, 168, 246-254.	1.8	43
31	Thermoelectric Materials: Current Status and Future Challenges. <i>Frontiers in Electronic Materials</i> , 2021, 1, .	1.6	41
32	Thermoelectric Materials: A Brief Historical Survey from Metal Junctions and Inorganic Semiconductors to Organic Polymers. <i>Israel Journal of Chemistry</i> , 2014, 54, 534-552.	1.0	37
33	Crystallization kinetics and enhanced dielectric properties of free standing lead-free PVDF based composite films. <i>Polymer</i> , 2017, 121, 88-96.	1.8	37
34	Physical properties of poly lactic acid/clay nanocomposite films: Effect of filler content and annealing treatment. <i>Journal of Applied Polymer Science</i> , 2014, 131, .	1.3	36
35	Graphite Nanoplatelet Modified Epoxy Resin for Carbon Fibre Reinforced Plastics with Enhanced Properties. <i>Journal of Nanomaterials</i> , 2017, 2017, 1-10.	1.5	36
36	Ultra-High Actuation Stress Polymer Actuators as Light-Driven Artificial Muscles. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 33210-33218.	4.0	36

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37	Universal Control on Pyroresistive Behavior of Flexible Self-Regulating Heating Devices. <i>Advanced Functional Materials</i> , 2017, 27, 1702253.	7.8	34
38	Pyroresistivity in conductive polymer composites: a perspective on recent advances and new applications. <i>Polymer International</i> , 2019, 68, 299-305.	1.6	33
39	Static and dynamic percolation of phenoxy/carbon nanotube nanocomposites. <i>European Polymer Journal</i> , 2015, 68, 128-138.	2.6	31
40	Tailored pyroresistive performance and flexibility by introducing a secondary thermoplastic elastomeric phase into graphene nanoplatelet (GNP) filled polymer composites for self-regulating heating devices. <i>Journal of Materials Chemistry C</i> , 2018, 6, 2760-2768.	2.7	28
41	Flexible and Stretchable Self-Powered Multi-Sensors Based on the N-Type Thermoelectric Response of Polyurethane/Na <sub>x</sub> (Ni <sub>n</sub> ) Composites. <i>Advanced Electronic Materials</i> , 2019, 5, 1900582.	2.6	28
42	Integrated Damage Sensing in Fibre-Reinforced Composites with Extremely Low Carbon Nanotube Loadings. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-7.	1.5	27
43	High mechanical reinforcing efficiency of layered poly(vinyl alcohol) "graphene oxide nanocomposites. <i>Nanocomposites</i> , 2015, 1, 89-95.	2.2	27
44	The effect of conductive network on positive temperature coefficient behaviour in conductive polymer composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 139, 106074.	3.8	27
45	In-Situ Monitoring of Interlaminar Shear Damage in Carbon Fibre Composites. <i>Advanced Composites Letters</i> , 2015, 24, 096369351502400.	1.3	26
46	Flexible and Foldable Films of SWCNT Thermoelectric Composites and an S-Shape Thermoelectric Generator with a Vertical Temperature Gradient. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 5973-5982.	4.0	26
47	Synergistic Reinforcement of Highly Oriented Poly(propylene) Tapes by Sepiolite Nanoclay. <i>Macromolecular Materials and Engineering</i> , 2010, 295, 37-47.	1.7	24
48	Dynamic percolation in highly oriented conductive networks formed with different carbon nanofillers. <i>Colloid and Polymer Science</i> , 2012, 290, 1393-1401.	1.0	24
49	Glass-like transparent high strength polyethylene films by tuning drawing temperature. <i>Polymer</i> , 2019, 171, 180-191.	1.8	24
50	Nano- and Microfiber PVB Patches as Natural Oil Carriers for Atopic Skin Treatment. <i>ACS Applied Bio Materials</i> , 2020, 3, 7666-7676.	2.3	24
51	Breaking the Nanoparticle Loading "Dispersion Dichotomy in Polymer Nanocomposites with the Art of Croissant-Making. <i>ACS Nano</i> , 2018, 12, 9040-9050.	7.3	22
52	Sustainable and self-regulating out-of-oven manufacturing of FRPs with integrated multifunctional capabilities. <i>Composites Science and Technology</i> , 2020, 190, 108032.	3.8	22
53	Effect of mixed fillers on positive temperature coefficient of conductive polymer composites. <i>Nanocomposites</i> , 2016, 2, 58-64.	2.2	21
54	Self-powered ultrasensitive and highly stretchable temperature "strain sensing composite yarns. <i>Materials Horizons</i> , 2021, 8, 2513-2519.	6.4	21

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55	Enhanced Thermal and Electrical Properties of Polystyrene-Graphene Nanofibers via Electrospinning. <i>Journal of Nanomaterials</i> , 2016, 2016, 1-8.	1.5	20
56	Multilayer coextrusion of graphene polymer nanocomposites with enhanced structural organization and properties. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46041.	1.3	19
57	Improving tensile strength and toughness of melt processed polyamide 6/multiwalled carbon nanotube composites by <i>in situ</i> polymerization and filler surface functionalization. <i>Journal of Applied Polymer Science</i> , 2011, 120, 133-140.	1.3	18
58	Oriented Poly(lactic acid)/Carbon Nanotube Composite Tapes with High Electrical Conductivity and Mechanical Properties. <i>Macromolecular Materials and Engineering</i> , 2015, 300, 1257-1267.	1.7	17
59	Processing and characterization of free standing highly oriented ferroelectric polymer films with remarkably low coercive field and high remnant polarization. <i>Polymer</i> , 2016, 100, 69-76.	1.8	17
60	Light-Driven Actuation in Synthetic Polymers: A Review from Fundamental Concepts to Applications. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	16
61	Synergistic effects of filler size on thermal annealing-induced percolation in polylactic acid (PLA)/graphite nanoplatelet (GNP) nanocomposites. <i>Nanocomposites</i> , 2017, 3, 67-75.	2.2	15
62	Smart cord-rubber composites with integrated sensing capabilities by localised carbon nanotubes using a simple swelling and infusion method. <i>Composites Science and Technology</i> , 2018, 167, 24-31.	3.8	15
63	Dissolvable thermoplastic interleaves for carbon nanotube localization in carbon/epoxy laminates with integrated damage sensing capabilities. <i>Structural Health Monitoring</i> , 2018, 17, 59-66.	4.3	14
64	Highly stretchable and sensitive self-powered sensors based on the N-Type thermoelectric effect of polyurethane/Nax(Ni-ett)n/graphene oxide composites. <i>Composites Communications</i> , 2021, 28, 100952.	3.3	14
65	Graphene Delivery Systems for Hierarchical Fiber Reinforced Composites. <i>MRS Advances</i> , 2016, 1, 1339-1344.	0.5	12
66	Ultra-high energy density integrated polymer dielectric capacitors. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10171-10180.	5.2	12
67	Thermoelectric behaviour of Bi-Te films on polymer substrates DC-sputtered at room-temperature in moving web deposition. <i>Surface and Coatings Technology</i> , 2020, 385, 125393.	2.2	11
68	High-Performance Transparent Laminates Based on Highly Oriented Polyethylene Films. <i>ACS Applied Polymer Materials</i> , 2020, 2, 2458-2468.	2.0	10
69	Nanoclay assisted ultra-drawing of polypropylene tapes. <i>Nanocomposites</i> , 2019, 5, 114-123.	2.2	9
70	Best of Both Worlds: Synergistically Derived Material Properties via Additive Manufacturing of Nanocomposites. <i>Advanced Functional Materials</i> , 2021, 31, 2103334.	7.8	8
71	Preparation of High Modulus Poly(Ethylene Terephthalate): Influence of Molecular Weight, Extrusion, and Drawing Parameters. <i>International Journal of Polymer Science</i> , 2017, 2017, 1-10.	1.2	7
72	Static and Dynamic Postannealing Strategies for Roll-to-Roll Fabrication of DC Magnetron Sputtered Bismuth Telluride Thin Films onto Polymer Webs. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 10149-10160.	4.0	7

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73	Low-cost Free-standing ferroelectric polymer films with high polarization produced via pressing-and-folding. <i>Journal of Materiomics</i> , 2022, 8, 640-648.	2.8	7
74	Optimization of Three-Roll Mill Parameters for In-Situ Exfoliation of Graphene. <i>MRS Advances</i> , 2016, 1, 1389-1394.	0.5	6
75	A meshless method for the nonlinear von Kármán plate with multiple folds of complex shape. <i>Computational Mechanics</i> , 2019, 64, 769-787.	2.2	5
76	Photo-thermal actuation of ultra-drawn high-density polyethylene. <i>Polymer</i> , 2020, 207, 122897.	1.8	4
77	Tailoring nanofibrillated cellulose through sonication and its potential use in molded pulp packaging. <i>Nanocomposites</i> , 2021, 7, 109-122.	2.2	3
78	Numerical simulations of folding mechanics in nonlinear plates using discontinuous rotations. <i>International Journal of Solids and Structures</i> , 2022, 249, 111675.	1.3	3
79	Nano-Engineered Hierarchical Carbon Fibres and Their Composites: Preparation, Properties and Multifunctionalities. , 2017, , 101-116.		2
80	A Photoaddressable Liquid Crystalline Phase Transition in Graphene Oxide Nanocomposites. <i>Advanced Functional Materials</i> , 2019, 29, 1900738.	7.8	2
81	Dual In-Situ Water Diffusion Monitoring of GFRPs based on Optical Fibres and CNTs. <i>Journal of Composites Science</i> , 2020, 4, 97.	1.4	1
82	Photo-Actuation Stress of Ultra-Drawn, Chain-Extended Polyethylene. <i>ACS Applied Polymer Materials</i> , 2021, 3, 2211-2217.	2.0	1
83	Bioinspired Layer-by-Layer Poly(vinyl alcohol) - Graphene Oxide Nanocomposites. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1410, 19.	0.1	0
84	Photo-Responsive Graphene: A Photoaddressable Liquid Crystalline Phase Transition in Graphene Oxide Nanocomposites ( <i>Adv. Funct. Mater.</i> 24/2019). <i>Advanced Functional Materials</i> , 2019, 29, 1970165.	7.8	0
85	Best of Both Worlds: Synergistically Derived Material Properties via Additive Manufacturing of Nanocomposites ( <i>Adv. Funct. Mater.</i> 46/2021). <i>Advanced Functional Materials</i> , 2021, 31, 2170343.	7.8	0