

Daniele Cangialosi

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Physical aging in polymers and polymer nanocomposites: recent results and open questions. <i>Soft Matter</i> , 2013, 9, 8619.	2.7	206
2	Tg depression and invariant segmental dynamics in polystyrene thin films. <i>Soft Matter</i> , 2012, 8, 5119.	2.7	173
3	Direct Evidence of Two Equilibration Mechanisms in Glassy Polymers. <i>Physical Review Letters</i> , 2013, 111, 095701.	7.8	166
4	On the equivalence between the thermodynamic and dynamic measurements of the glass transition in confined polymers. <i>Journal of Non-Crystalline Solids</i> , 2015, 407, 288-295.	3.1	123
5	Effect of nanostructure on the thermal glass transition and physical aging in polymer materials. <i>Progress in Polymer Science</i> , 2016, 54-55, 128-147.	24.7	123
6	Processing Pathways Decide Polymer Properties at the Molecular Level. <i>Macromolecules</i> , 2019, 52, 7146-7156.	4.8	105
7	Direct Measurement of Glass Transition Temperature in Exposed and Buried Adsorbed Polymer Nanolayers. <i>Macromolecules</i> , 2016, 49, 4647-4655.	4.8	100
8	Enthalpy Recovery of Glassy Polymers: Dramatic Deviations from the Extrapolated Liquidlike Behavior. <i>Macromolecules</i> , 2011, 44, 8333-8342.	4.8	95
9	Dynamics and thermodynamics of polymer glasses. <i>Journal of Physics Condensed Matter</i> , 2014, 26, 153101.	1.8	92
10	Irreversible Adsorption Erases the Free Surface Effect on the T_g of Supported Films of Poly(4- <i>tert</i> -butylstyrene). <i>ACS Macro Letters</i> , 2017, 6, 354-358.	4.8	91
11	Physical aging of polystyrene/gold nanocomposites and its relation to the calorimetric Tg depression. <i>Soft Matter</i> , 2011, 7, 3607.	2.7	89
12	Enthalpy Recovery in Nanometer to Micrometer Thick Polystyrene Films. <i>Macromolecules</i> , 2012, 45, 5296-5306.	4.8	86
13	Hierarchical aging pathways and reversible fragile-to-strong transition upon annealing of a metallic glass former. <i>Acta Materialia</i> , 2018, 144, 400-410.	7.9	86
14	Positron Annihilation Lifetime Spectroscopy for Measuring Free Volume during Physical Aging of Polycarbonate. <i>Macromolecules</i> , 2003, 36, 142-147.	4.8	84
15	Interfacial Free Volume and Vitrification: Reduction in T_g in Proximity of an Adsorbing Interface Explained by the Free Volume Holes Diffusion Model. <i>Macromolecules</i> , 2013, 46, 8051-8053.	4.8	82
16	Accelerated physical aging in PMMA/silica nanocomposites. <i>Soft Matter</i> , 2010, 6, 3306.	2.7	72
17	Single-chain nanoparticles: opportunities provided by internal and external confinement. <i>Materials Horizons</i> , 2020, 7, 2292-2313.	12.2	72
18	Physical aging of polycarbonate far below the glass transition temperature: Evidence for the diffusion mechanism. <i>Physical Review B</i> , 2004, 70, .	3.2	66

#	ARTICLE	IF	CITATIONS
19	Route to calculate the length scale for the glass transition in polymers. <i>Physical Review E</i> , 2007, 76, 011514.	2.1	65
20	Mobility and glass transition temperature of polymer nanospheres. <i>Polymer</i> , 2013, 54, 230-235.	3.8	64
21	Enthalpy Recovery of PMMA/Silica Nanocomposites. <i>Macromolecules</i> , 2010, 43, 7594-7603.	4.8	63
22	Enhanced physical aging of polymer nanocomposites: The key role of the area to volume ratio. <i>Polymer</i> , 2012, 53, 1362-1372.	3.8	63
23	Free volume holes diffusion to describe physical aging in poly(methyl methacrylate)/silica nanocomposites. <i>Journal of Chemical Physics</i> , 2011, 135, 014901.	3.0	62
24	Direct Calorimetric Observation of the Rigid Amorphous Fraction in a Semiconducting Polymer. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 990-995.	4.6	61
25	Glass Transition and Molecular Dynamics in Polystyrene Nanospheres by Fast Scanning Calorimetry. <i>ACS Macro Letters</i> , 2017, 6, 859-863.	4.8	59
26	Relationship between dynamics and thermodynamics in glass-forming polymers. <i>Europhysics Letters</i> , 2005, 70, 614-620.	2.0	57
27	Vitrification decoupling from α -relaxation in a metallic glass. <i>Science Advances</i> , 2020, 6, eaay1454.	10.3	54
28	Combining configurational entropy and self-concentration to describe the component dynamics in miscible polymer blends. <i>Journal of Chemical Physics</i> , 2005, 123, 144908.	3.0	52
29	The very long-term physical aging of glassy polymers. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 12356-12361.	2.8	52
30	Reaching the ideal glass transition by aging polymer films. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 961-965.	2.8	44
31	A thermodynamic approach to the fragility of glass-forming polymers. <i>Journal of Chemical Physics</i> , 2006, 124, 024906.	3.0	43
32	Glass transition and segmental dynamics in thin supported polystyrene films: The role of molecular weight and annealing. <i>Thermochimica Acta</i> , 2013, 566, 186-192.	2.7	42
33	Thermodynamic Ultrastability of a Polymer Glass Confined at the Micrometer Length Scale. <i>Physical Review Letters</i> , 2018, 121, 137801.	7.8	41
34	Dynamics of polycarbonate far below the glass transition temperature: μ Sr positron annihilation lifetime study. <i>Physical Review B</i> , 2004, 69, .	3.2	38
35	Hybrid organic inorganic nylon-6/SiO ₂ nanocomposites: Transport properties. <i>Polymer Engineering and Science</i> , 2004, 44, 1240-1246.	3.1	36
36	On the temperature dependence of the nonexponentiality in glass-forming liquids. <i>Journal of Chemical Physics</i> , 2009, 130, 124902.	3.0	36

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37	Physical aging in PMMA/silica nanocomposites: Enthalpy and dielectric relaxation. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 605-609.	3.1	35
38	Universal relation between viscous flow and fast dynamics in glass-forming materials. <i>Physical Review B</i> , 2010, 81, .	3.2	34
39	Time dependence of the segmental relaxation time of poly(vinyl acetate)-silica nanocomposites. <i>Physical Review E</i> , 2012, 86, 041501.	2.1	34
40	Physical Aging and Glass Transition of the Rigid Amorphous Fraction in Poly(l-lactic acid). <i>Macromolecules</i> , 2020, 53, 8741-8750.	4.8	34
41	Diffusion mechanism for physical aging of polycarbonate far below the glass transition temperature studied by means of dielectric spectroscopy. <i>Journal of Non-Crystalline Solids</i> , 2005, 351, 2605-2610.	3.1	33
42	Accounting for the thickness dependence of the Tg in supported PS films via the volume holes diffusion model. <i>Thermochimica Acta</i> , 2014, 575, 233-237.	2.7	33
43	Complex nonequilibrium dynamics of stacked polystyrene films deep in the glassy state. <i>Journal of Chemical Physics</i> , 2017, 146, 203312.	3.0	33
44	Polymorphism in Non- π -Fullerene Acceptors Based on Indacenodithienothiophene. <i>Advanced Functional Materials</i> , 2021, 31, 2103784.	14.9	33
45	Predicting the Time Scale of the Component Dynamics of Miscible Polymer Blends: The Polyisoprene/Poly(vinylethylene) Case. <i>Macromolecules</i> , 2006, 39, 7149-7156.	4.8	32
46	Self-concentration effects on the dynamics of a polychlorinated biphenyl diluted in 1,4-polybutadiene. <i>Journal of Chemical Physics</i> , 2007, 126, 204904.	3.0	31
47	A Wavelength-Shifting Fluorescent Probe for Investigating Physical Aging. <i>Macromolecules</i> , 2006, 39, 224-231.	4.8	29
48	Direct observation of desorption of a melt of long polymer chains. <i>Nature Communications</i> , 2020, 11, 4354.	12.8	27
49	Mobility and solubility of antioxidants and oxygen in glassy polymers. III. Influence of deformation and orientation on oxygen permeability. <i>Polymer</i> , 2003, 44, 2463-2471.	3.8	25
50	Mobility and solubility of antioxidants and oxygen in glassy polymers II. Influence of physical ageing on antioxidant and oxygen mobility. <i>Polymer Degradation and Stability</i> , 2003, 79, 427-438.	5.8	24
51	Amorphous-amorphous transition in glassy polymers subjected to cold rolling studied by means of positron annihilation lifetime spectroscopy. <i>Journal of Chemical Physics</i> , 2005, 122, 064702.	3.0	23
52	Describing the component dynamics in miscible polymer blends: Towards a fully predictive model. <i>Journal of Chemical Physics</i> , 2006, 124, 154904.	3.0	23
53	Dielectric relaxation of polychlorinated biphenyl/toluene mixtures: Component dynamics. <i>Journal of Chemical Physics</i> , 2008, 128, 224508.	3.0	23
54	Double Mechanism for Structural Recovery of Polystyrene Nanospheres. <i>Macromolecules</i> , 2018, 51, 3299-3307.	4.8	23

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55	Physical Aging Behavior of a Glassy Polyether. <i>Polymers</i> , 2021, 13, 954.	4.5	23
56	Shell Architecture Strongly Influences the Glass Transition, Surface Mobility, and Elasticity of Polymer Core-Shell Nanoparticles. <i>Macromolecules</i> , 2019, 52, 5399-5406.	4.8	22
57	Cooling Rate Dependent Glass Transition in Thin Polymer Films and in Bulk. , 2016, , 403-431.		21
58	The Importance of Quantifying the Composition of the Amorphous Intermixed Phase in Organic Solar Cells. <i>Advanced Materials</i> , 2020, 32, e2005241.	21.0	21
59	Reaching the Ideal Glass in Polymer Spheres: Thermodynamics and Vibrational Density of States. <i>Physical Review Letters</i> , 2021, 126, 118004.	7.8	19
60	Dynamical heterogeneity in binary mixtures of low-molecular-weight glass formers. <i>Physical Review E</i> , 2009, 80, 041505.	2.1	17
61	Volume recovery of polystyrene/silica nanocomposites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 847-853.	2.1	15
62	Accumulation of charges in polycarbonate due to positron irradiation. <i>Radiation Physics and Chemistry</i> , 2003, 68, 507-510.	2.8	14
63	Enhanced Free Surface Mobility Facilitates the Release of Free-Volume Holes in Thin-Film Polymer Glasses. <i>Macromolecules</i> , 2021, 54, 2022-2028.	4.8	14
64	Direct Visualization and Characterization of Interfacially Adsorbed Polymer atop Nanoparticles and within Nanocomposites. <i>Macromolecules</i> , 2021, 54, 10224-10234.	4.8	14
65	Positron annihilation and relaxation dynamics from dielectric spectroscopy: poly(vinylmethylether). <i>Journal of Physics Condensed Matter</i> , 2012, 24, 155104.	1.8	13
66	Glassy Dynamics of an All-Polymer Nanocomposite Based on Polystyrene Single-Chain Nanoparticles. <i>Macromolecules</i> , 2019, 52, 6868-6877.	4.8	13
67	Effect of molecular weight on vitrification kinetics and molecular mobility of a polymer glass confined at the microscale. <i>Thermochimica Acta</i> , 2019, 677, 60-66.	2.7	13
68	Study of methyl methacrylate polymerization in the presence of rubbers. <i>European Polymer Journal</i> , 2001, 37, 535-539.	5.4	12
69	Properties and morphology of PMMA/ABN blends obtained via MMA in situ polymerisation through $\hat{\text{I}}^3$ -rays. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001, 185, 262-266.	1.4	10
70	High throughput optimization procedure to characterize vitrification kinetics. <i>Thermochimica Acta</i> , 2022, 707, 179084.	2.7	10
71	Tunable Properties of MAPLE-Deposited Thin Films in the Presence of Suppressed Segmental Dynamics. <i>ACS Macro Letters</i> , 2019, 8, 1115-1121.	4.8	9
72	Modeling the Dynamics of Head-to-Head Polypropylene in Blends with Polyisobutylene. <i>Macromolecules</i> , 2006, 39, 448-450.	4.8	8

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73	Class Transition and Physical Aging of Confined Polymers Investigated by Calorimetric Techniques. Handbook of Thermal Analysis and Calorimetry, 2018, , 301-337.	1.6	8
74	Bio-based semi-crystalline PEF: Temperature dependence of the constrained amorphous interphase and amorphous chain mobility in relation to crystallization. Polymer, 2022, 247, 124771.	3.8	8
75	Miscible Polymer Blends with Large Dynamical Asymmetry: A New Class of Solid-State Electrolytes?. Macromolecules, 2008, 41, 1565-1569.	4.8	7
76	Effect of silica particles concentration on the physical aging of PMMA-silica nanocomposites. AIP Conference Proceedings, 2010, , .	0.4	7
77	Gold nanoparticles endowed with low-temperature colloidal stability by cyclic polyethylene glycol in ethanol. Soft Matter, 2021, 17, 7792-7801.	2.7	7
78	Relaxation of Free Volume in Polycarbonate and Polystyrene Studied by Positron Annihilation Lifetime Spectroscopy. Acta Physica Polonica A, 2005, 107, 690-696.	0.5	7
79	Synthesis of macrocyclic poly(ethylene oxide)s containing a protected thiol group: a strategy for decorating gold surfaces with ring polymers. Polymer Chemistry, 2019, 10, 6495-6504.	3.9	6
80	Decoupling of Glassy Dynamics from Viscosity in Thin Supported Poly(<i>n</i> -butyl methacrylate) Films. ACS Polymers Au, 2022, 2, 333-340.	4.1	6
81	Electron beam induced polymerisation of MMA in the presence of rubber: a novel process to produce tough materials. Radiation Physics and Chemistry, 2002, 63, 63-68.	2.8	5
82	Glass transition and aging of the rigid amorphous fraction in polymorphic poly(butene-1). Polymer, 2021, 226, 123830.	3.8	5
83	Submicron structured polymethyl methacrylate/acrylonitrile-butadiene rubber blends obtained via gamma radiation induced <i>in situ</i> polymerization. Advances in Polymer Technology, 2004, 23, 211-221.	1.7	4
84	Comment on "Vibrational and configurational parts of the specific heat at glass formation". Physical Review B, 2008, 78, .	3.2	4
85	Effect of Confinement Geometry on Out-of-Equilibrium Glassy Dynamics. Soft and Biological Matter, 2015, , 265-298.	0.3	4
86	Equilibrium and Out-of-Equilibrium Dynamics in Confined Polymers and Other Glass Forming Systems by Dielectric Spectroscopy and Calorimetric Techniques. Advances in Dielectrics, 2014, , 339-361.	1.2	4
87	Correlation Between Segmental Dynamics, Glass Transition, and Lithium Ion Conduction in Poly(Methyl Methacrylate)/Ionic Liquid Mixture. Journal of Macromolecular Science - Physics, 2013, 52, 590-603.	1.0	3
88	Vitrification and Physical Aging in Polymer Glasses by Broadband Dielectric Spectroscopy. ACS Symposium Series, 2021, , 133-156.	0.5	3
89	Positron Annihilation Lifetime Spectroscopy to Study the Structural Relaxation of PC Far Below the Glass Transition Temperature. Materials Science Forum, 2004, 445-446, 271-273.	0.3	2
90	Comment on "Anomalous structural recovery in the near glass transition range in a polymer glass: Data revisited in light of temperature variability in vacuum oven-based experiments". Polymer Engineering and Science, 0, , .	3.1	1

#	ARTICLE	IF	CITATIONS
91	Chapter 8. Glass Transition and Crystallization in Colloidal Polymer Nanoparticles. RSC Soft Matter, 2019, , 263-288.	0.4	0