Fernando Alvarez

List of Publications by Citations

Source: https://exaly.com/author-pdf/5764036/fernando-alvarez-publications-by-citations.pdf
Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

56 papers	2,400 citations	24 h-index	48 g-index
57 ext. papers	2,526 ext. citations	3.8 avg, IF	4.42 L-index

#	Paper	IF	Citations
56	Relationship between the time-domain Kohlrausch-Williams-Watts and frequency-domain Havriliak-Negami relaxation functions. *Physical Review B*, **1991**, 44, 7306-7312	3.3	549
55	Interconnection between frequency-domain Havriliak-Negami and time-domain Kohlrausch-Williams-Watts relaxation functions. *Physical Review B*, **1993**, 47, 125-130	3.3	191
54	The merging of the dielectric □and □relaxations in poly-(methyl methacrylate). *Journal of Chemical Physics*, **1998**, 109, 7546-7555	3.9	163
53	Self-motion and the alpha relaxation in a simulated glass-forming polymer: crossover from Gaussian to non-Gaussian dynamic behavior. *Physical Review E*, **2002**, 65, 041804	2.4	111
52	Dynamics of the alpha relaxation of a glass-forming polymeric system: Dielectric, mechanical, nuclear-magnetic-resonance, and neutron-scattering studies. *Physical Review B*, **1991**, 44, 7321-7329	3.3	93
51	Dynamics of poly(ethylene oxide) in a blend with poly(methyl methacrylate): a quasielastic neutron scattering and molecular dynamics simulations study. *Physical Review E*, **2005**, 72, 031808	2.4	88
50	Non-Gaussian nature of the alpha relaxation of glass-forming polyisoprene. *Physical Review Letters*, **2002**, 89, 245701	7.4	83
49	Studying biological tissue with fluorescence lifetime imaging: microscopy, endoscopy, and complex decay profiles. *Applied Optics*, **2003**, 42, 2995-3004	1.7	80
48	Experimental evidence by neutron scattering of a crossover from Gaussian to non-Gaussian behavior in the alpha relaxation of polyisoprene. *Physical Review E*, **2003**, 67, 051802	2.4	77
47	Dielectric relaxation in PMMA revisited. *Journal of Non-Crystalline Solids*, **1998**, 235-237, 580-583	3.9	74
46	Study of the dynamics of poly(ethylene oxide) by combining molecular dynamic simulations and neutron scattering experiments. *Journal of Chemical Physics*, **2009**, 130, 094908	3.9	63
45	Study of the Two-Component Segmental Dynamics of Poly(vinylethylene)/Polyisoprene Miscible Blends. *Macromolecules*, **1997**, 30, 597-604	5.5	63
44	Local Structure of Syndiotactic Poly(methyl methacrylate). A Combined Study by Neutron Diffraction with Polarization Analysis and Atomistic Molecular Dynamics Simulations. *Macromolecules*, **2006**, 39, 3947-3958	5.5	44
43	Self- and Collective Dynamics of Syndiotactic Poly(methyl methacrylate). A Combined Study by Quasielastic Neutron Scattering and Atomistic Molecular Dynamics Simulations. *Macromolecules*, **2006**, 39, 6260-6272	5.5	43
42	Chain Motion in Nonentangled Dynamically Asymmetric Polymer Blends: Comparison between Atomistic Simulations of PEO/PMMA and a Generic Bead□Spring Model. *Macromolecules*, **2010**, 43, 3036-3051	5.5	41
41	Single Chain Dynamic Structure Factor of Poly(ethylene oxide) in Dynamically Asymmetric Blends with Poly(methyl methacrylate). Neutron Scattering and Molecular Dynamics Simulations. *Macromolecules*, **2012**, 45, 536-542	5.5	33
40	Origin of the Distribution of Potential Barriers for Methyl Group Dynamics in Glassy Polymers: A Molecular Dynamics Simulation in Polyisoprene. *Macromolecules*, **2000**, 33, 8077-8084	5.5	33

39	Neutron scattering and molecular dynamics simulations: synergetic tools to unravel structure and dynamics in polymers. *Soft Matter*, **2012**, 8, 8257	3.6	32
38	A new method for obtaining distributions of relaxation times from frequency relaxation spectra. *Journal of Chemical Physics*, **1995**, 103, 798-806	3.9	30
37	Partial Structure Factors of Polyisoprene: Neutron Scattering and Molecular Dynamics Simulation. *Macromolecules*, **2003**, 36, 238-248	5.5	28
36	The coalescence range of the □and □processes in the glass-forming liquid bis-phenol-C-dimethylether (BCDE). *Journal of Chemical Physics*, **1996**, 105, 432-439	3.9	28
35	Structure factors in polystyrene: a neutron scattering and MD-simulation study. *Physica B: Condensed Matter*, **2004**, 350, E881-E884	2.8	26
34	Hydrogen motions in the alpha-relaxation regime of poly(vinyl ethylene): a molecular dynamics simulation and neutron scattering study. *Journal of Chemical Physics*, **2004**, 121, 3282-94	3.9	25
33	Modeling the collective relaxation time of glass-forming polymers at intermediate length scales: application to polyisobutylene. *Journal of Chemical Physics*, **2013**, 139, 044906	3.9	24
32	Quasielastic Neutron Scattering and Molecular Dynamics Simulation Study on the Structure Factor of Poly(ethylene-alt-propylene). *Macromolecules*, **2009**, 42, 8271-8285	5.5	23
31	Atomic motions in the alphabeta-merging region of 1,4-polybutadiene: a molecular dynamics simulation study. *Journal of Chemical Physics*, **2008**, 128, 224905	3.9	23
30	Short-range order and collective dynamics of poly(vinyl acetate): a combined study by neutron scattering and molecular dynamics simulations. *Journal of Chemical Physics*, **2008**, 129, 224903	3.9	23
29	Atomic motions in poly(vinyl methyl ether): A combined study by quasielastic neutron scattering and molecular dynamics simulations in the light of the mode coupling theory. *Journal of Chemical Physics*, **2009**, 131, 204901	3.9	22
28	Segmental Dynamics in Bulk Poly(isobornyl methacrylate) and Its Random Copolymer with Poly(methyl methacrylate) near Tg. *Macromolecules*, **1995**, 28, 6488-6493	5.5	22
27	Study of the structure and dynamics of poly(vinyl pyrrolidone) by molecular dynamics simulations validated by quasielastic neutron scattering and x-ray diffraction experiments. *Journal of Chemical Physics*, **2011**, 134, 054904	3.9	21
26	Partial Structure Factors in 1,4-Polybutadiene. A Combined Neutron Scattering and Molecular Dynamics Simulations Study. *Macromolecules*, **2005**, 38, 9847-9853	5.5	21
25	Methyl group dynamics above the glass transition temperature: a molecular dynamics simulation in polyisoprene. *Chemical Physics*, **2000**, 261, 47-59	2.3	21
24	Self-motion and the □relaxation in glass-forming polymers. Molecular dynamic simulation and quasielastic neutron scattering results in polyisoprene. *Journal of Physics Condensed Matter*, **2003**, 15, S1127-S1138	1.8	17
23	Chain dynamics of poly(ethylene-alt-propylene) melts by means of coarse-grained simulations based on atomistic molecular dynamics. *Journal of Chemical Physics*, **2010**, 132, 024904	3.9	16
22	Non-Lorentzian Rayleigh spectra of bulk homopolymers far above the glass transition. *Physical Review B*, **1994**, 49, 14996-15003	3.3	15

21	Collective Features in Polyisobutylene. A Study of the Static and Dynamic Structure Factor by Molecular Dynamics Simulations. *Macromolecules*, **2014**, 47, 447-459	5.5	14
20	Atomic motions in the □-region of glass-forming polymers: molecular versus mode coupling theory approach. *Journal of Physics Condensed Matter*, **2007**, 19, 205127	1.8	14
19	Chain Dynamics of Unentangled Poly(ethylene-alt-propylene) Melts by Means of Neutron Scattering and Fully Atomistic Molecular Dynamics Simulations. *Macromolecules*, **2011**, 44, 3129-3139	5.5	13
18	The decisive influence of local chain dynamics on the overall dynamic structure factor close to the glass transition. *Europhysics Letters*, **2005**, 71, 262-268	1.6	13
17	Applicability of mode-coupling theory to polyisobutylene: a molecular dynamics simulation study. *Physical Review E*, **2013**, 88, 042302	2.4	12
16	The free-volume structure of a polymer melt, poly(vinyl methylether) from molecular dynamics simulations and cavity analysis. *Journal of Chemical Physics*, **2009**, 131, 064903	3.9	12
15	Hydrogen motions and the □-relaxation in glass-forming polymers: Molecular dynamics simulation and quasi-elastic neutron scattering results **2004**, 63, 25-32		12
14	Insight into the Structure and Dynamics of Polymers by Neutron Scattering Combined with Atomistic Molecular Dynamics Simulations. *Polymers*, **2020**, 12,	4.5	8
13	Collective dynamics of glass-forming polymers at intermediate length scales. *EPJ Web of Conferences*, **2015**, 83, 01001	0.3	8
12	The free volume of poly(vinyl methylether) as computed in a wide temperature range and at length scales up to the nanoregion. *Journal of Chemical Physics*, **2011**, 134, 044512	3.9	8
11	Coherent structural relaxation of water from meso- to intermolecular scales measured using neutron spectroscopy with polarization analysis. *Physical Review Research*, **2020**, 2,	3.9	8
10	On the momentum transfer dependence of the atomic motions in the □-relaxation range. Polymers vs. low□olecular-weight glass-forming systems. *Europhysics Letters*, **2007**, 80, 38001	1.6	7
9	Methyl group dynamics in glassy polymers by neutron scattering: from classical to quantum motions. *Physica B: Condensed Matter*, **2000**, 276-278, 322-325	2.8	7
8	Investigation of the dynamics of aqueous proline solutions using neutron scattering and molecular dynamics simulations. *Physical Chemistry Chemical Physics*, **2017**, 19, 27739-27754	3.6	6
7	Partial structure factors of a simulated polymer melt. *Computational Materials Science*, **2002**, 25, 596-605	3.2	5
6	On the interactions between poly(ethylene oxide) and graphite oxide: a comparative study by different computational methods. *Journal of Chemical Physics*, **2013**, 138, 094308	3.9	3
5	Free Volume in a PVME Polymer□Water Solution. *Macromolecules*, **2020**, 53, 4770-4782	5.5	1
4	Self-motion of protons in the □-relaxation of poly(vinyl ethylene): a neutron scattering and MD-simulation study. *Physica B: Condensed Matter*, **2004**, 350, E1091-E1093	2.8	1

3	On the origin of the distribution of potential barriers for methyl group dynamics in glassy polymers: Neutron scattering & MD-simulations **1999**,		1
2	Disentangling Self-Atomic Motions in Polyisobutylene by Molecular Dynamics Simulations. *Polymers* , **2021**, 13,	4.5	1
1	Unraveling the coherent dynamic structure factor of liquid water at the mesoscale by molecular dynamics simulations.. *Journal of Chemical Physics*, **2021**, 155, 244509	3.9	0