

Beatrice Ruta

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2988840/publications.pdf>

Version: 2024-02-01

53
papers

2,060
citations

257429

24
h-index

243610

44
g-index

54
all docs

54
docs citations

54
times ranked

1652
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic-Scale Relaxation Dynamics and Aging in a Metallic Glass Probed by X-Ray Photon Correlation Spectroscopy. <i>Physical Review Letters</i> , 2012, 109, 165701.	7.8	217
2	Sound Attenuation at Terahertz Frequencies and the Boson Peak of Vitreous Silica. <i>Physical Review Letters</i> , 2010, 104, 195501.	7.8	135
3	Relaxation Decoupling in Metallic Glasses at Low Temperatures. <i>Physical Review Letters</i> , 2017, 118, 225901.	7.8	102
4	X-Ray Photon Correlation Spectroscopy Reveals Intermittent Aging Dynamics in a Metallic Glass. <i>Physical Review Letters</i> , 2015, 115, 175701.	7.8	100
5	Revealing the fast atomic motion of network glasses. <i>Nature Communications</i> , 2014, 5, 3939.	12.8	87
6	Unveiling the structural arrangements responsible for the atomic dynamics in metallic glasses during physical aging. <i>Nature Communications</i> , 2016, 7, 10344.	12.8	87
7	Relaxation processes and physical aging in metallic glasses. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 503002.	1.8	86
8	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
9	Ultrastable metallic glasses formed on cold substrates. <i>Nature Communications</i> , 2018, 9, 1389.	12.8	83
10	Compressed correlation functions and fast aging dynamics in metallic glasses. <i>Journal of Chemical Physics</i> , 2013, 138, 054508.	3.0	73
11	Connection between Boson Peak and Elastic Properties in Silicate Glasses. <i>Physical Review Letters</i> , 2009, 102, 195502.	7.8	61
12	Relaxation of rapidly quenched metallic glasses: Effect of the relaxation state on the slow low temperature dynamics. <i>Acta Materialia</i> , 2013, 61, 3002-3011.	7.9	56
13	Vitrification decoupling from $\hat{\tau}$ -relaxation in a metallic glass. <i>Science Advances</i> , 2020, 6, eaay1454.	10.3	54
14	2D dynamical arrest transition in a mixed nanoparticle-phospholipid layer studied in real and momentum spaces. <i>Scientific Reports</i> , 2015, 5, 17930.	3.3	45
15	Anti-Aging in Ultrastable Metallic Glasses. <i>Physical Review Letters</i> , 2018, 120, 135504.	7.8	45
16	Silica nanoparticles as tracers of the gelation dynamics of a natural biopolymer physical gel. <i>Soft Matter</i> , 2014, 10, 4547.	2.7	44
17	Acoustic excitations in glassy sorbitol and their relation with the fragility and the boson peak. <i>Journal of Chemical Physics</i> , 2012, 137, 214502.	3.0	43
18	Concentration and velocity profiles in a polymeric lithium-ion battery electrolyte. <i>Energy and Environmental Science</i> , 2020, 13, 4312-4321.	30.8	43

#	ARTICLE	IF	CITATIONS
19	Structural and microscopic relaxations in a colloidal glass. <i>Soft Matter</i> , 2015, 11, 466-471.	2.7	39
20	Free-volume dependent atomic dynamics in beta relaxation pronounced La-based metallic glasses. <i>Acta Materialia</i> , 2015, 99, 290-296.	7.9	39
21	Hard X-rays as pump and probe of atomic motion in oxide glasses. <i>Scientific Reports</i> , 2017, 7, 3962.	3.3	37
22	Anharmonic Damping of Terahertz Acoustic Waves in a Network Glass and Its Effect on the Density of Vibrational States. <i>Physical Review Letters</i> , 2014, 112, 125502.	7.8	36
23	Role of Impurities in the Kinetic Persistence of Amorphous Calcium Carbonate: A Nanoscopic Dynamics View. <i>Journal of Physical Chemistry C</i> , 2018, 122, 16983-16991.	3.1	35
24	Communication: High-frequency acoustic excitations and boson peak in glasses: A study of their temperature dependence. <i>Journal of Chemical Physics</i> , 2010, 133, 041101.	3.0	34
25	Nonergodicity Factor, Fragility, and Elastic Properties of Polymeric Glassy Sulfur. <i>Journal of Physical Chemistry B</i> , 2011, 115, 14052-14063.	2.6	25
26	Relaxation Dynamics, Softness, and Fragility of Microgels with Interpenetrated Polymer Networks. <i>Macromolecules</i> , 2020, 53, 1596-1603.	4.8	24
27	Hydrophobic Silica Nanoparticles Induce Gel Phases in Phospholipid Monolayers. <i>Langmuir</i> , 2016, 32, 4868-4876.	3.5	21
28	Glass-forming ability correlated with the liquid-liquid transition in Pd _{42.5} Ni _{42.5} P ₁₅ alloy. <i>Scripta Materialia</i> , 2021, 193, 117-121.	5.2	21
29	Controlling the dynamics of a bidimensional gel above and below its percolation transition. <i>Physical Review E</i> , 2014, 89, 042308.	2.1	19
30	Relaxation dynamics induced in glasses by absorption of hard x-ray photons. <i>Physical Review B</i> , 2019, 99, .	3.2	19
31	Wave-Vector Dependence of the Dynamics in Supercooled Metallic Liquids. <i>Physical Review Letters</i> , 2020, 125, 055701.	7.8	18
32	Structure beyond pair correlations: X-ray cross-correlation from colloidal crystals. <i>Journal of Applied Crystallography</i> , 2016, 49, 2046-2052.	4.5	18
33	Structural and dynamical properties of Mg ₆₅ Cu ₂₅ Y ₁₀ metallic glasses studied by in situ high energy X-ray diffraction and time resolved X-ray photon correlation spectroscopy. <i>Journal of Alloys and Compounds</i> , 2014, 615, S45-S50.	5.5	17
34	Relaxation dynamics and aging in structural glasses. , 2013, , .		16
35	Sub-T relaxation times of the $\hat{\mu}$ process in metallic glasses. <i>Journal of Non-Crystalline Solids</i> , 2017, 471, 322-327.	3.1	16
36	Thermal transport properties in amorphous/nanocrystalline metallic composites: A microscopic insight. <i>Acta Materialia</i> , 2017, 136, 425-435.	7.9	16

#	ARTICLE	IF	CITATIONS
37	Microscopic evidence of the connection between liquid-liquid transition and dynamical crossover in an ultraviscous metallic glass former. <i>Physical Review Materials</i> , 2018, 2, .	2.4	14
38	Structural Dynamics of Materials Probed by X-Ray Photon Correlation Spectroscopy. , 2016, , 1617-1641.		13
39	Aging and structural relaxation of hyper-quenched Mg ₆₅ Cu ₂₅ Y ₁₀ metallic glass. <i>Journal of Alloys and Compounds</i> , 2014, 615, S9-S12.	5.5	12
40	Brillouin light scattering study of glassy sorbitol. <i>Philosophical Magazine</i> , 2008, 88, 3939-3946.	1.6	10
41	High frequency acoustic attenuation of vitreous silica: New insight from inelastic x-ray scattering. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 538-541.	3.1	10
42	Slowing down of dynamics and orientational order preceding crystallization in hard-sphere systems. <i>Science Advances</i> , 2020, 6, .	10.3	10
43	Nonmonotonous atomic motions in metallic glasses. <i>Physical Review B</i> , 2020, 102, .	3.2	10
44	Relaxation dynamics of Pd ⁴⁴ Ni ¹¹ P metallic glass: decoupling of anelastic and viscous processes. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 164004.	1.8	10
45	Microscopic Structural Evolution during Ultrastable Metallic Glass Formation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 40098-40105.	8.0	10
46	Structural Dynamics of Materials Probed by X-Ray Photon Correlation Spectroscopy. , 2015, , 1-21.		10
47	On the nontrivial wave-vector dependence of the elastic modulus of glasses. <i>Physical Review B</i> , 2016, 93, .	3.2	9
48	Nanoscale Ion Dynamics Control on Amorphous Calcium Carbonate Crystallization: Precise Control of Calcite Crystal Sizes. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25645-25656.	3.1	8
49	Brillouin light scattering study of polymeric glassy sulfur. <i>Journal of Non-Crystalline Solids</i> , 2011, 357, 563-566.	3.1	7
50	Comparing the atomic and macroscopic aging dynamics in an amorphous and partially crystalline Zr ₄₄ Ti ₁₁ Ni ₁₀ Cu ₁₀ Be ₂₅ bulk metallic glass. <i>Journal of Materials Research</i> , 2017, 32, 2014-2021.	2.6	7
51	Intrinsic relaxation in a supercooled ZrTiNiCuBe glass forming liquid. <i>Physical Review Materials</i> , 2021, 5, .	2.4	7
52	Dynamics and Imaging Using Coherent X-rays at the European Synchrotron. <i>Synchrotron Radiation News</i> , 2017, 30, 13-18.	0.8	6
53	Structural Dynamics of Materials Probed by X-Ray Photon Correlation Spectroscopy. , 2020, , 1989-2018.		6