Tanguy Rouxel

List of Publications by Year in descending order

79 papers	3,706 citations	126907 33 h-index	128289 60 g-index
79 all docs	79 docs citations	79 times ranked	2457 citing authors

#	Article	IF	Citations
1	Elastic Properties and Shortâ€to Mediumâ€Range Order in Glasses. Journal of the American Ceramic Society, 2007, 90, 3019-3039.	3.8	433
2	Towards Ultrastrong Glasses. Advanced Materials, 2011, 23, 4578-4586.	21.0	314
3	Quantitative evaluation of indentation-induced densification in glass. Journal of Materials Research, 2005, 20, 3404-3412.	2.6	223
4	High Temperature Behavior of a Gel-Derived SiOC Glass: Elasticity and Viscosity. Journal of Sol-Gel Science and Technology, 1999, 14, 87-94.	2.4	139
5	Creep Viscosity and Stress Relaxation of Gelâ€Derived Silicon Oxycarbide Glasses. Journal of the American Ceramic Society, 2001, 84, 1052-1058.	3.8	119
6	Correlation between structure and physical properties of chalcogenide glasses in the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>As</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> Physical Review B, 2010, 82, .	3.2	117
7	Mechanical characterization of a polysiloxane-derived SiOC glass. Journal of the European Ceramic Society, 2007, 27, 397-403.	5.7	115
8	Yttrium SiAlON glasses: structure and mechanical properties â€" elasticity and viscosity. Journal of Non-Crystalline Solids, 1996, 201, 128-145.	3.1	113
9	Tensile Ductility of Superplastic Al2O3-Y2O3-Si3N4/SiC Composites. Journal of the American Ceramic Society, 1992, 75, 2363-2372.	3.8	112
10	Hardness, Toughness, and Scratchability of Germaniumâ€"Selenium Chalcogenide Glasses. Journal of the American Ceramic Society, 2002, 85, 1545-1552.	3.8	104
11	The fracture toughness of inorganic glasses. Journal of the American Ceramic Society, 2017, 100, 4374-4396.	3.8	97
12	Hardness and toughness of sodium borosilicate glasses via Vickers's indentations. Journal of Non-Crystalline Solids, 2015, 417-418, 66-79.	3.1	92
13	Driving force for indentation cracking in glass: composition, pressure and temperature dependence. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140140.	3.4	85
14	The brittle to ductile transition in a sodaâ€"limeâ€"silica glass. Journal of Non-Crystalline Solids, 2000, 271, 224-235.	3.1	70
15	Densification of window glass under very high pressure and its relevance to Vickers indentation. Scripta Materialia, 2006, 55, 1159-1162.	5.2	63
16	Raman spectra of SiYAlON glasses and ceramics. Journal of Non-Crystalline Solids, 1990, 122, 298-304.	3.1	59
17	Structure and rheological properties of the REâ€"Siâ€"Mgâ€"Oâ€"N (RE=Sc, Y, La, Nd, Sm, Gd, Yb and Lu) glasses. Journal of Non-Crystalline Solids, 2004, 344, 8-16.	3.1	58
18	Physical properties of the GexSe1â^'x glasses in the 0<x<0.42 range in correlation with their structure. Journal of Non-Crystalline Solids, 2013, 377, 54-59.	3.1	58

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19	Indentation of glasses. Progress in Materials Science, 2021, 121, 100834.	32.8	54
20	Indentation creep of Geâ€“Se chalcogenide glasses below Tg: elastic recovery and non-Newtonian flow. Journal of Non-Crystalline Solids, 2002, 298, 260-269.	3.1	51
21	Thermal stability and crystallisation of a Zr55Cu30Al10Ni5 bulk metallic glass studied by in situ ultrasonic echography. Intermetallics, 2002, 10, 1289-1296.	3.9	50
22	High-temperature elasticity and viscosity of Ge<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>glasses in the transition range. Physical Review B, 2011, 84, .	3.2	49
23	Surface Damage Resistance of Gelâ€Derived Oxycarbide Glasses: Hardness, Toughness, and Scratchability. Journal of the American Ceramic Society, 2001, 84, 2220-2224.	3.8	46
24	Temperature dependence of Young's modulus in Si3N4-based ceramics: roles of sintering additives and of SiC-particle content. Acta Materialia, 2002, 50, 1669-1682.	7.9	45
25	Elastic properties of glasses: a multiscale approach. Comptes Rendus - Mecanique, 2006, 334, 743-753.	2.1	44
26	Fracture surface energy and toughness of inorganic glasses. Scripta Materialia, 2017, 137, 109-113.	5.2	44
27	Superplastic forming of an Î±-phase rich silicon nitride. Journal of Materials Research, 1997, 12, 480-492.	2.6	42
28	Thermodynamics of viscous flow and elasticity of glass forming liquids in the glass transition range. Journal of Chemical Physics, 2011, 135, 184501.	3.0	40
29	Fracture toughness, fracture energy and slow crack growth of glass as investigated by the Single-Edge Precracked Beam (SEPB) and Chevron-Notched Beam (CNB) methods. Acta Materialia, 2018, 146, 1-11.	7.9	39
30	Viscoelastic behavior of a soda-lime-silica glass in the 293â€“833 K range by micro-indentation. Journal of Materials Research, 2006, 21, 632-638.	2.6	38
31	Crystallization and Properties of a Si-Y-Al-O-N Glass-Ceramic. Journal of the American Ceramic Society, 1993, 76, 2103-2105.	3.8	36
32	Structure-Property Correlations in Y-Ca-Mg-Sialon Glasses: Physical and Mechanical Properties. Journal of the American Ceramic Society, 2005, 88, 889-896.	3.8	36
33	Optical and mechanical properties of far infrared transmitting glassâ€“ceramics. Journal of Non-Crystalline Solids, 2007, 353, 1298-1301.	3.1	35
34	Toward glasses with better indentation cracking resistance. Comptes Rendus - Mecanique, 2014, 342, 46-51.	2.1	33
35	Elastic properties and indentation cracking behavior of Na2O-TiO2-SiO2 glasses. Journal of Non-Crystalline Solids, 2015, 429, 129-142.	3.1	31
36	Mechanical strength improvement of a soda-limeâ€“silica glass by thermal treatment under flowing gas. Journal of the European Ceramic Society, 2004, 24, 2803-2812.	5.7	28

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37	SiC particle reinforced oxynitride glass: Processing and mechanical properties. Journal of the European Ceramic Society, 1997, 17, 773-780.	5.7	27
38	Photoinduced fluidity in chalcogenide glasses at low and high intensities: A model accounting for photon efficiency. Physical Review B, 2010, 82, .	3.2	27
39	Elasticity, hardness, and fracture toughness of sodium aluminoborosilicate glasses. Journal of the American Ceramic Society, 2019, 102, 4520-4537.	3.8	27
40	Indentation topometry in glasses by atomic force microscopy. Journal of Non-Crystalline Solids, 2004, 344, 26-36.	3.1	26
41	Influence of the normal load of scratching on cracking and mechanical strength of soda-lime-silica glass. Journal of Non-Crystalline Solids, 2018, 483, 65-69.	3.1	26
42	Creep Behavior of Soda-Lime Glass in the 100-500 K Temperature Range by Indentation Creep Test. Journal of the American Ceramic Society, 2005, 88, 2625-2628.	3.8	23
43	Evidence and modeling of mechanoluminescence in a transparent glass particulate composite. Applied Physics Letters, 2015, 107, .	3.3	23
44	Title is missing!. International Journal of Fracture, 1998, 91, 83-101.	2.2	22
45	In situ crystallization and elastic properties of transparent MgOâ€“Al₂O₃â€“SiO₂ glassâ€ceramic. Journal of the American Ceramic Society, 2017, 100, 2166-2175.	3.8	22
46	R-Curve Behavior and Stable Crack Growth at Elevated Temperature (1500o-1650oC) in a Si3N4/SiC Nanocomposite. Journal of the American Ceramic Society, 1994, 77, 3237-3243.	3.8	20
47	Elastic moduli of a ZrCuAlNi bulk metallic glass from room temperature to complete crystallisation by in situ pulse-echo ultrasonic echography. Journal of the Ceramic Society of Japan, 2008, 116, 851-854.	1.1	20
48	Aqueous Corrosion of the GeSe₄ Chalcogenide Glass: Surface Properties and Corrosion Mechanism. Journal of the American Ceramic Society, 2009, 92, 1779-1787.	3.8	20
49	Structure and viscosity of phaseâ€separated BaOâ€“SiO₂ glasses. Journal of the American Ceramic Society, 2017, 100, 1982-1993.	3.8	20
50	Correlation Between Thermal and Mechanical Relaxation in Chalcogenide Glass Fibers. Journal of the American Ceramic Society, 2009, 92, 1986-1992.	3.8	19
51	Fracture toughness and hardness of transparent MgOâ€“Al2O3â€“SiO2 glass-ceramics. Ceramics International, 2022, 48, 9906-9917.	4.8	19
52	Elastic properties and surface damage resistance of nitrogen-rich (Ca,Sr)â€“Siâ€“Oâ€“N glasses. Journal of Non-Crystalline Solids, 2010, 356, 2120-2126.	3.1	18
53	Interaction between Deformation and Crack Initiation under Vickers Indentation in Na2Oâ€“TiO2â€“SiO2 Glasses. Frontiers in Materials, 2017, 4, .	2.4	18
54	Free silicon and crystallization in silicon nitride based ceramics and in oxynitride glasses. Journal of Applied Physics, 1996, 79, 9074-9079.	2.5	17

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55	Direct observation of the displacement field and microcracking in a glass by means of X-ray tomography during in situ Vickers indentation experiment. Acta Materialia, 2019, 179, 424-433.	7.9	17
56	Elastic properties and fracture toughness of SiOCâ€based glassâ€ceramic nanocomposites. Journal of the American Ceramic Society, 2020, 103, 491-499.	3.8	17
57	Scratchability of Soda-Lime Silica (SLS) Glasses: Dynamic Fracture Analysis. Key Engineering Materials, 2005, 290, 31-38.	0.4	16
58	A relationship between non-exponential stress relaxation and delayed elasticity in the viscoelastic process in amorphous solids: Illustration on a chalcogenide glass. Mechanics of Materials, 2015, 85, 47-56.	3.2	16
59	Compressive creep and indentation behavior of plasticine between 103 and 353K. Mechanics of Materials, 2009, 41, 199-209.	3.2	15
60	Viscosity of As2Se3 Glass During the Fiber Drawing Process. Journal of the American Ceramic Society, 2011, 94, 2408-2411.	3.8	14
61	Effect of composition and high-temperature annealing on the local deformation behavior of silicon oxycarbides. Journal of the European Ceramic Society, 2019, 39, 2287-2296.	5.7	13
62	High Temperature Mechanical Behavior of Silicon Nitride Ceramics.. Journal of the Ceramic Society of Japan, 2001, 109, S89-S97.	1.3	12
63	Influence of diamond particles content on the critical load for crack initiation and fracture toughness of SiOC glassâ€“diamond composites. Journal of the European Ceramic Society, 2013, 33, 847-858.	5.7	11
64	Viscosity of high-nitrogen content Caâ€“Siâ€“Oâ€“N glasses. Journal of the European Ceramic Society, 2010, 30, 3455-3458.	5.7	10
65	Mechanical Behavior of a Borosilicate Glass Under Aqueous Corrosion. Journal of the American Ceramic Society, 2005, 88, 3256-3259.	3.8	8
66	Role of Poissonâ€™s ratio mismatch on the crack path in glass matrix particulate composites. International Journal of Fracture, 2017, 207, 73-85.	2.2	6
67	A magnetic glass matrix (ZnO-BaO-B2O3) particulate (Fe3O4) nanocomposite obtained by SPS. Journal of Non-Crystalline Solids, 2019, 514, 116-121.	3.1	6
68	Nucleation and crystallization of Ba2Si3O8 spherulites in a barium aluminum silicate glass, and mechanical properties of the obtained glass-ceramics. Journal of the European Ceramic Society, 2021, 41, 838-848.	5.7	6
69	<scp><scp>SiOC</scp></scp> Glassâ€“Diamond Composites. Journal of the American Ceramic Society, 2012, 95, 545-552.	3.8	5
70	Photoinduced aging and viscosity evolution in Se-rich Ge-Se glasses. Journal of Applied Physics, 2013, 114, 074901.	2.5	5
71	Influence of SiC/Silica and Carbon/Silica Interfaces on the Highâ€Temperature Creep of Silicon Oxycarbideâ€Based Glass Ceramics: A Case Study. Advanced Engineering Materials, 2019, 21, 1800596.	3.5	5
72	Environment dependence of KIc of glass. Journal of Non-Crystalline Solids, 2021, 566, 120873.	3.1	5

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73	Physics of the Brittle-Ductile Transition in Glasses and Glass-Containing Ceramics: Time and Temperature Incidences. Key Engineering Materials, 1999, 166, 65-72.	0.4	3
74	Photoinduced Fluidity and Viscoelasticity in Chalcogenide Glasses. International Journal of Applied Glass Science, 2012, 3, 53-58.	2.0	3
75	The Influence of Cu Content on the Mechanical Properties of Copper-Borate Glasses. Key Engineering Materials, 2016, 702, 71-76.	0.4	3
76	Healing of cracks by green laser irradiation in a nanogold particles glass matrix composite. Journal of Non-Crystalline Solids, 2019, 503-504, 115-119.	3.1	3
77	An application of Curieâ€™s principle to elastoplastic dynamics. Mechanics Research Communications, 2008, 35, 376-382.	1.8	1
78	Indentation and Scratching of Glass: Load, Composition and Temperature Effects. , 2005, , 121-133.		0
79	Examen du modÃ¨le dâ€™ampoule de E. Yoffe. Materiaux Et Techniques, 2015, 103, 604.	0.9	0