

Tanguy Rouxel

List of Publications by Year in descending order

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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	Fracture toughness and hardness of transparent MgO-Al ₂ O ₃ -SiO ₂ glass-ceramics. <i>Ceramics International</i> , 2022, 48, 9906-9917.	4.8	19
2	Nucleation and crystallization of Ba ₂ Si ₃ O ₈ spherulites in a barium aluminum silicate glass, and mechanical properties of the obtained glass-ceramics. <i>Journal of the European Ceramic Society</i> , 2021, 41, 838-848.	5.7	6
3	Environment dependence of K _{1c} of glass. <i>Journal of Non-Crystalline Solids</i> , 2021, 566, 120873.	3.1	5
4	Indentation of glasses. <i>Progress in Materials Science</i> , 2021, 121, 100834.	32.8	54
5	Elastic properties and fracture toughness of SiO ₂ -based glass-ceramic nanocomposites. <i>Journal of the American Ceramic Society</i> , 2020, 103, 491-499.	3.8	17
6	Influence of SiC/Silica and Carbon/Silica Interfaces on the High-Temperature Creep of Silicon Oxycarbide-Based Glass Ceramics: A Case Study. <i>Advanced Engineering Materials</i> , 2019, 21, 1800596.	3.5	5
7	Direct observation of the displacement field and microcracking in a glass by means of X-ray tomography during in situ Vickers indentation experiment. <i>Acta Materialia</i> , 2019, 179, 424-433.	7.9	17
8	A magnetic glass matrix (ZnO-BaO-B ₂ O ₃) particulate (Fe ₃ O ₄) nanocomposite obtained by SPS. <i>Journal of Non-Crystalline Solids</i> , 2019, 514, 116-121.	3.1	6
9	Effect of composition and high-temperature annealing on the local deformation behavior of silicon oxycarbides. <i>Journal of the European Ceramic Society</i> , 2019, 39, 2287-2296.	5.7	13
10	Elasticity, hardness, and fracture toughness of sodium aluminoborosilicate glasses. <i>Journal of the American Ceramic Society</i> , 2019, 102, 4520-4537.	3.8	27
11	Healing of cracks by green laser irradiation in a nanogold particles glass matrix composite. <i>Journal of Non-Crystalline Solids</i> , 2019, 503-504, 115-119.	3.1	3
12	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. <i>Acta Materialia</i> , 2018, 146, 1-11.	7.9	39
13	Influence of the normal load of scratching on cracking and mechanical strength of soda-lime-silica glass. <i>Journal of Non-Crystalline Solids</i> , 2018, 483, 65-69.	3.1	26
14	In situ crystallization and elastic properties of transparent MgO-Al ₂ O ₃ -SiO ₂ glass-ceramic. <i>Journal of the American Ceramic Society</i> , 2017, 100, 2166-2175.	3.8	22
15	Fracture surface energy and toughness of inorganic glasses. <i>Scripta Materialia</i> , 2017, 137, 109-113.	5.2	44
16	Role of Poisson's ratio mismatch on the crack path in glass matrix particulate composites. <i>International Journal of Fracture</i> , 2017, 207, 73-85.	2.2	6
17	Structure and viscosity of phase-separated BaO-SiO ₂ glasses. <i>Journal of the American Ceramic Society</i> , 2017, 100, 1982-1993.	3.8	20
18	The fracture toughness of inorganic glasses. <i>Journal of the American Ceramic Society</i> , 2017, 100, 4374-4396.	3.8	97

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19	Interaction between Deformation and Crack Initiation under Vickers Indentation in Na ₂ O-TiO ₂ -SiO ₂ Glasses. <i>Frontiers in Materials</i> , 2017, 4, .	2.4	18
20	The Influence of Cu Content on the Mechanical Properties of Copper-Borate Glasses. <i>Key Engineering Materials</i> , 2016, 702, 71-76.	0.4	3
21	Evidence and modeling of mechanoluminescence in a transparent glass particulate composite. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	23
22	Driving force for indentation cracking in glass: composition, pressure and temperature dependence. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2015, 373, 20140140.	3.4	85
23	Hardness and toughness of sodium borosilicate glasses via Vickers's indentations. <i>Journal of Non-Crystalline Solids</i> , 2015, 417-418, 66-79.	3.1	92
24	A relationship between non-exponential stress relaxation and delayed elasticity in the viscoelastic process in amorphous solids: Illustration on a chalcogenide glass. <i>Mechanics of Materials</i> , 2015, 85, 47-56.	3.2	16
25	Elastic properties and indentation cracking behavior of Na ₂ O-TiO ₂ -SiO ₂ glasses. <i>Journal of Non-Crystalline Solids</i> , 2015, 429, 129-142.	3.1	31
26	Examen du modèle de l'ampoule de E. Yoffe. <i>Materiaux Et Techniques</i> , 2015, 103, 604.	0.9	0
27	Toward glasses with better indentation cracking resistance. <i>Comptes Rendus - Mecanique</i> , 2014, 342, 46-51.	2.1	33
28	Photoinduced aging and viscosity evolution in Se-rich Ge-Se glasses. <i>Journal of Applied Physics</i> , 2013, 114, 074901.	2.5	5
29	Physical properties of the Ge _x Se _{1-x} glasses in the 0$x$$0.42$ range in correlation with their structure. <i>Journal of Non-Crystalline Solids</i> , 2013, 377, 54-59.	3.1	58
30	Influence of diamond particles content on the critical load for crack initiation and fracture toughness of SiOC glass-diamond composites. <i>Journal of the European Ceramic Society</i> , 2013, 33, 847-858.	5.7	11
31	SiOC Glass-Diamond Composites. <i>Journal of the American Ceramic Society</i> , 2012, 95, 545-552.	3.8	5
32	Photoinduced Fluidity and Viscoelasticity in Chalcogenide Glasses. <i>International Journal of Applied Glass Science</i> , 2012, 3, 53-58.	2.0	3
33	Thermodynamics of viscous flow and elasticity of glass forming liquids in the glass transition range. <i>Journal of Chemical Physics</i> , 2011, 135, 184501.	3.0	40
34	Viscosity of As ₂ Se ₃ Glass During the Fiber Drawing Process. <i>Journal of the American Ceramic Society</i> , 2011, 94, 2408-2411.	3.8	14
35	Towards Ultrastrong Glasses. <i>Advanced Materials</i> , 2011, 23, 4578-4586.	21.0	314
36	High-temperature elasticity and viscosity of Ge _x Se _{1-x} glasses in the transition range. <i>Physical Review B</i> , 2011, 84, .	3.2	49

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37	Viscosity of high-nitrogen content Ca-Si-O-N glasses. Journal of the European Ceramic Society, 2010, 30, 3455-3458.	5.7	10
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	Elastic properties and surface damage resistance of nitrogen-rich (Ca,Sr)-Si-O-N glasses. Journal of Non-Crystalline Solids, 2010, 356, 2120-2126.	3.1	18
40	Correlation between structure and physical properties of chalcogenide glasses in the As_xSi_{1-x} system. Physical Review B, 2010, 82, .	3.2	117
41	Aqueous Corrosion of the $GeSe_4$ Chalcogenide Glass: Surface Properties and Corrosion Mechanism. Journal of the American Ceramic Society, 2009, 92, 1779-1787.	3.8	20
42	Correlation Between Thermal and Mechanical Relaxation in Chalcogenide Glass Fibers. Journal of the American Ceramic Society, 2009, 92, 1986-1992.	3.8	19
43	Compressive creep and indentation behavior of plasticine between 103 and 353K. Mechanics of Materials, 2009, 41, 199-209.	3.2	15
44	An application of Curie's principle to elastoplastic dynamics. Mechanics Research Communications, 2008, 35, 376-382.	1.8	1
45	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
46	Optical and mechanical properties of far infrared transmitting glass-ceramics. Journal of Non-Crystalline Solids, 2007, 353, 1298-1301.	3.1	35
47	Elastic Properties and Short- to Medium-Range Order in Glasses. Journal of the American Ceramic Society, 2007, 90, 3019-3039.	3.8	433
48	Mechanical characterization of a polysiloxane-derived SiOC glass. Journal of the European Ceramic Society, 2007, 27, 397-403.	5.7	115
49	Elastic properties of glasses: a multiscale approach. Comptes Rendus - Mecanique, 2006, 334, 743-753.	2.1	44
50	Densification of window glass under very high pressure and its relevance to Vickers indentation. Scripta Materialia, 2006, 55, 1159-1162.	5.2	63
51	Viscoelastic behavior of a soda-lime-silica glass in the 293-833 K range by micro-indentation. Journal of Materials Research, 2006, 21, 632-638.	2.6	38
52	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
53	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
54	Mechanical Behavior of a Borosilicate Glass Under Aqueous Corrosion. Journal of the American Ceramic Society, 2005, 88, 3256-3259.	3.8	8

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55	Quantitative evaluation of indentation-induced densification in glass. <i>Journal of Materials Research</i> , 2005, 20, 3404-3412.	2.6	223
56	Scratchability of Soda-Lime Silica (SLS) Glasses: Dynamic Fracture Analysis. <i>Key Engineering Materials</i> , 2005, 290, 31-38.	0.4	16
57	Indentation and Scratching of Glass: Load, Composition and Temperature Effects. , 2005, , 121-133.		0
58	Mechanical strength improvement of a soda-lime-silica glass by thermal treatment under flowing gas. <i>Journal of the European Ceramic Society</i> , 2004, 24, 2803-2812.	5.7	28
59	Structure and rheological properties of the RE-Si-Mg-O-N (RE=Sc, Y, La, Nd, Sm, Gd, Yb and Lu) glasses. <i>Journal of Non-Crystalline Solids</i> , 2004, 344, 8-16.	3.1	58
60	Indentation topometry in glasses by atomic force microscopy. <i>Journal of Non-Crystalline Solids</i> , 2004, 344, 26-36.	3.1	26
61	Indentation creep of Ge-Se chalcogenide glasses below T _g : elastic recovery and non-Newtonian flow. <i>Journal of Non-Crystalline Solids</i> , 2002, 298, 260-269.	3.1	51
62	Thermal stability and crystallisation of a Zr ₅₅ Cu ₃₀ Al ₁₀ Ni ₅ bulk metallic glass studied by in situ ultrasonic echography. <i>Intermetallics</i> , 2002, 10, 1289-1296.	3.9	50
63	Temperature dependence of Young's modulus in Si ₃ N ₄ -based ceramics: roles of sintering additives and of SiC-particle content. <i>Acta Materialia</i> , 2002, 50, 1669-1682.	7.9	45
64	Hardness, Toughness, and Scratchability of Germanium-Selenium Chalcogenide Glasses. <i>Journal of the American Ceramic Society</i> , 2002, 85, 1545-1552.	3.8	104
65	High Temperature Mechanical Behavior of Silicon Nitride Ceramics.. <i>Journal of the Ceramic Society of Japan</i> , 2001, 109, S89-S97.	1.3	12
66	Creep Viscosity and Stress Relaxation of Gel-Derived Silicon Oxycarbide Glasses. <i>Journal of the American Ceramic Society</i> , 2001, 84, 1052-1058.	3.8	119
67	Surface Damage Resistance of Gel-Derived Oxycarbide Glasses: Hardness, Toughness, and Scratchability. <i>Journal of the American Ceramic Society</i> , 2001, 84, 2220-2224.	3.8	46
68	The brittle to ductile transition in a soda-lime-silica glass. <i>Journal of Non-Crystalline Solids</i> , 2000, 271, 224-235.	3.1	70
69	Physics of the Brittle-Ductile Transition in Glasses and Glass-Containing Ceramics: Time and Temperature Incidences. <i>Key Engineering Materials</i> , 1999, 166, 65-72.	0.4	3
70	High Temperature Behavior of a Gel-Derived SiOC Glass: Elasticity and Viscosity. <i>Journal of Sol-Gel Science and Technology</i> , 1999, 14, 87-94.	2.4	139
71	Title is missing!. <i>International Journal of Fracture</i> , 1998, 91, 83-101.	2.2	22
72	Superplastic forming of an $\hat{\epsilon}$ -phase rich silicon nitride. <i>Journal of Materials Research</i> , 1997, 12, 480-492.	2.6	42

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73	SiC particle reinforced oxynitride glass: Processing and mechanical properties. Journal of the European Ceramic Society, 1997, 17, 773-780.	5.7	27
74	Yttrium SiAlON glasses: structure and mechanical properties " elasticity and viscosity. Journal of Non-Crystalline Solids, 1996, 201, 128-145.	3.1	113
75	Free silicon and crystallization in silicon nitride based ceramics and in oxynitride glasses. Journal of Applied Physics, 1996, 79, 9074-9079.	2.5	17
76	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
77	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
78	Tensile Ductility of Superplastic Al2O3-Y2O3-Si3N4/SiC Composites. Journal of the American Ceramic Society, 1992, 75, 2363-2372.	3.8	112
79	Raman spectra of SiYAlON glasses and ceramics. Journal of Non-Crystalline Solids, 1990, 122, 298-304.	3.1	59