Gianni Royer Carfagni

List of Publications by Year
in descending order

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161	2,731	249298	274796
papers	citations	26 h-index	44 g-index

165	165	165	1647
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Regularized variational theories of fracture: A unified approach. Journal of the Mechanics and Physics of Solids, 2010, 58, 1154-1174.	2.3	155
2	Effective thickness of laminated glass beams: New expression via a variational approach. Engineering Structures, 2012, 38, 53-67.	2.6	152
3	The Variational Approach to Fracture Mechanics. AÂPractical Application to the French PanthÃ©on in Paris. Journal of Elasticity, 2009, 95, 1-30.	0.9	119
4	Laminated beams with viscoelastic interlayer. International Journal of Solids and Structures, 2012, 49, 2637-2645.	1.3	109
5	Fluidic Microactuation of Flexible Electrodes for Neural Recording. Nano Letters, 2018, 18, 326-335.	4.5	84
6	Practical expressions for the design of laminated glass. Composites Part B: Engineering, 2013, 45, 1677-1688.	5.9	75
7	Enhanced Effective Thickness of multi-layered laminated glass. Composites Part B: Engineering, 2014, 64, 202-213.	5.9	74
8	The effective thickness of laminated glass plates. Journal of Mechanics of Materials and Structures, 2012, 7, 375-400.	0.4	72
9	On the thermal degradation of marble. International Journal of Rock Mechanics and Minings Sciences, 1999, 36, 119-126.	2.6	68
10	Buckling of three-layered composite beams with viscoelastic interaction. Composite Structures, 2014, 107, 512-521.	3.1	56
11	The design of laminated glass under time-dependent loading. International Journal of Mechanical Sciences, 2013, 68, 67-75.	3.6	46
12	Effective bond length of FRP stiffeners. International Journal of Non-Linear Mechanics, 2014, 60, 46-57.	1.4	46
13	The Lower Bound for Glass Strength and Its Interpretation with Generalized Weibull Statistics for Structural Applications. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	45
14	A homogenized model for the post-breakage tensile behavior of laminated glass. Composite Structures, 2016, 154, 600-615.	3.1	45
15	Safety factors for the structural design of glass. Construction and Building Materials, 2014, 55, 114-127.	3.2	44
16	Some considerations on the warping of marble faÃ§ades: the example of Alvar Aaltoâ€™s Finland Hall in Helsinki. Construction and Building Materials, 1999, 13, 449-457.	3.2	42
17	The post-breakage response of laminated heat-treated glass under in plane and out of plane loading. Composites Part B: Engineering, 2018, 147, 227-239.	5.9	42
18	An enhanced nonâ€“local failure criterion for laminated glass under low velocity impact. International Journal of Impact Engineering, 2017, 109, 342-353.	2.4	40

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19	The statistical interpretation of the strength of float glass for structural applications. Construction and Building Materials, 2015, 98, 741-756.	3.2	37
20	Phase-field slip-line theory of plasticity. Journal of the Mechanics and Physics of Solids, 2016, 94, 257-272.	2.3	37
21	The effective thickness of laminated glass: Inconsistency of the formulation in a proposal of EN-standards. Composites Part B: Engineering, 2013, 55, 109-118.	5.9	35
22	The characterization of marble by cyclic compression loading: experimental results. International Journal for Numerical and Analytical Methods in Geomechanics, 2000, 5, 535-563.	1.2	33
23	A regularized non-smooth contact dynamics approach for architectural masonry structures. Computers and Structures, 2017, 187, 88-100.	2.4	32
24	Variational fracture mechanics to model compressive splitting of masonry-like materials. Annals of Solid and Structural Mechanics, 2011, 2, 57-67.	0.5	29
25	Buckling phenomena in double curved cold-bent glass. International Journal of Non-Linear Mechanics, 2014, 64, 70-84.	1.4	29
26	A homogenized analysis Ã la Hashin for cracked laminates under equi-biaxial stress. Applications to laminated glass. Composites Part B: Engineering, 2017, 111, 332-347.	5.9	27
27	The constraint of local injectivity in linear elasticity theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2001, 457, 2167-2187.	1.0	26
28	A mechanical model for the elasticâ€“plastic behavior of metallic bars. International Journal of Solids and Structures, 2000, 37, 3901-3918.	1.3	23
29	The role of frictional contact of constituent blocks on the stability of masonry domes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170740.	1.0	23
30	Fractional viscoelastic characterization of laminated glass beams under time-varying loading. International Journal of Mechanical Sciences, 2021, 196, 106274.	3.6	23
31	A Stokes theorem for second-order tensor fields and its implications in continuum mechanics. International Journal of Non-Linear Mechanics, 2005, 40, 381-386.	1.4	21
32	New calibration of partial material factors for the structural design of float glass. Comparison of bounded and unbounded statistics for glass strength. Construction and Building Materials, 2016, 121, 69-80.	3.2	21
33	Towards a new standardized configuration for the coaxial double test for float glass. Engineering Structures, 2016, 119, 149-163.	2.6	21
34	A fractional viscoelastic model for laminated glass sandwich plates under blast actions. International Journal of Mechanical Sciences, 2022, 222, 107204.	3.6	21
35	A Variational Model for Plastic Slip and Its Regularization via Î“-Convergence. Journal of Elasticity, 2013, 110, 201-235.	0.9	20
36	Flexural strength of glassâ€“ceramic for structural applications. Journal of the European Ceramic Society, 2014, 34, 2675-2685.	2.8	20

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37	A micromechanical derivation of the macroscopic strength statistics for pristine or corroded/abraded float glass. Journal of the European Ceramic Society, 2017, 37, 4197-4206.	2.8	20
38	Parametric-resonance-induced cable vibrations in network cable-stayed bridges. A continuum approach. Journal of Sound and Vibration, 2003, 262, 1191-1222.	2.1	19
39	An ESPI experimental study on the phenomenon of fracture in glass. Is it brittle or plastic?. Journal of the Mechanics and Physics of Solids, 2011, 59, 1338-1354.	2.3	19
40	Analytical approach Ã la Newmark for curved laminated glass. Composites Part B: Engineering, 2015, 76, 65-78.	5.9	19
41	Stress relaxation in tempered glass caused by heat soak testing. Engineering Structures, 2016, 122, 42-49.	2.6	19
42	Bending behavior of CNT fibers and their scaling laws. Soft Matter, 2018, 14, 8284-8292.	1.2	18
43	Bettiâ€™s Analytical Method for the load sharing in double glazed units. Composite Structures, 2020, 235, 111765.	3.1	18
44	The web bridge. International Journal of Solids and Structures, 2001, 38, 8831-8850.	1.3	17
45	Fail-safe point fixing of structural glass. New advances. Engineering Structures, 2009, 31, 1661-1676.	2.6	17
46	Plastic Flow as an Energy Minimization Problem. Numerical Experiments. Journal of Elasticity, 2014, 116, 53-74.	0.9	17
47	Optimal cold bending of laminated glass. International Journal of Solids and Structures, 2015, 67-68, 231-243.	1.3	17
48	Modeling the shear failure of segmental arches. International Journal of Solids and Structures, 2019, 158, 21-39.	1.3	17
49	Blast loads and nonlinear vibrations of laminated glass plates in an enhanced shear deformation theory. Composite Structures, 2020, 252, 112720.	3.1	17
50	Enhanced Effective Thickness for laminated glass beams and plates under torsion. Engineering Structures, 2020, 206, 110077.	2.6	17
51	Can a moment-curvature relationship describe the flexion of softening beams?. European Journal of Mechanics, A/Solids, 2001, 20, 253-276.	2.1	16
52	Shear coupling effects of the core in curved sandwich beams. Composites Part B: Engineering, 2015, 76, 320-331.	5.9	16
53	A Newtonian interpretation of configurational forces on dislocations and cracks. Journal of the Mechanics and Physics of Solids, 2016, 95, 602-620.	2.3	16
54	Discontinuous Deformation of Tensile Steel Bars: Experimental Results. Journal of Engineering Mechanics - ASCE, 1999, 125, 1243-1250.	1.6	15

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55	Simulating soft body impact on glass structures. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2016, 169, 416-431.	0.4	14
56	A non-smooth-contact-dynamics analysis of Brunelleschiâ€™s cupola: an octagonal vault or a circular dome?. Meccanica, 2019, 54, 525-547.	1.2	14
57	A SEM investigation on fatigue damage of marble. Journal of Materials Science Letters, 1999, 18, 1619-1622.	0.5	13
58	Structured deformation of damaged continua with cohesive-frictional sliding rough fractures. European Journal of Mechanics, A/Solids, 2005, 24, 644-660.	2.1	13
59	Cable-stiffened foldable elastica for movable structures. Engineering Structures, 2013, 56, 126-136.	2.6	13
60	A nonlocal elastica inspired by flexural tensegrity. International Journal of Engineering Science, 2021, 158, 103421.	2.7	13
61	Zwei Verfahren zum rechnerischen Nachweis der dynamischen Beanspruchung von Verglasungen durch weichen StoÃŸ. Stahlbau, 2011, 80, 81-87.	0.2	12
62	Cohesive debonding of a stiffener from an elastic substrate. Composite Structures, 2014, 111, 401-414.	3.1	12
63	Cold-lamination-bending of glass: Sinusoidal is better than circular. Composites Part B: Engineering, 2015, 79, 285-300.	5.9	12
64	Statistical interference of material strength and surface prestress in heatâ€treated glass. Journal of the American Ceramic Society, 2017, 100, 954-967.	1.9	12
65	A transparent three-layered laminate composed of poly(methylÂmethacrylate) and thermoplastic polyurethane subjected to low-velocity impact. International Journal of Impact Engineering, 2020, 136, 103419.	2.4	12
66	Greenâ€™s functions for the load sharing in multiple insulating glazing units. International Journal of Solids and Structures, 2020, 206, 412-425.	1.3	12
67	The static state of a two-phase solid mixture in a stressed elastic bar. International Journal of Solids and Structures, 1996, 33, 2267-2281.	1.3	11
68	Chemomechanical Equilibrium of Bars. Journal of Elasticity, 2006, 84, 167-188.	0.9	11
69	Energetic balance in the debonding of a reinforcing stringer: Effect of the substrate elasticity. International Journal of Solids and Structures, 2013, 50, 1954-1965.	1.3	11
70	Rheology of cold-lamination-bending for curved glazing. Engineering Structures, 2014, 61, 140-152.	2.6	11
71	Contact stresses in adhesive joints due to differential thermal expansion with the adherends. International Journal of Solids and Structures, 2016, 87, 26-38.	1.3	11
72	A simple model for the post-breakage response of laminated glass under in-plane loading. Composite Structures, 2019, 230, 111426.	3.1	11

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73	Architectural Glass. Springer Handbooks, 2019, , 1781-1819.	0.3	11
74	Multiple Natural States for an Elastic Isotropic Material with Polyconvex Stored Energy. Journal of Elasticity, 2000, 60, 223-231.	0.9	10
75	Separation of Scales in Fracture Mechanics: From Molecular to Continuum Theory via Î“ Convergence. Journal of Engineering Mechanics - ASCE, 2004, 130, 204-215.	1.6	10
76	Verification formulae for structural glass under combined variable loads. Engineering Structures, 2015, 83, 233-242.	2.6	10
77	Effective Width of the Slab in Composite Beams with Nonlinear Shear Connection. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	10
78	Redundancy and robustness of brittle laminated plates. Overlooked aspects in structural glass. Composite Structures, 2019, 227, 111288.	3.1	10
79	Alloy separation of a binary mixture in a stressed elastic sphere. Journal of Elasticity, 1996, 42, 49-77.	0.9	8
80	Critical issues in the design-by-testing of annealed glass components. Engineering Structures, 2015, 99, 108-119.	2.6	8
81	Biaxially curved glass with large radiiâ€"determination of strength using the coaxial double ring test. Glass Structures and Engineering, 2017, 2, 121-131.	0.8	8
82	The effective tensile and bending stiffness of nanotube fibers. International Journal of Mechanical Sciences, 2019, 163, 105089.	3.6	8
83	Flexural tensegrity of segmental beams. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, .	1.0	8
84	Equilibrium of bi-stable flexural-tensegrity segmental beams. Journal of the Mechanics and Physics of Solids, 2021, 152, 104411.	2.3	8
85	Engineered calculation of the uneven in-plane temperatures in Insulating Glass Units for structural design. Glass Structures and Engineering, 2022, 7, 71-99.	0.8	8
86	Evaluation of the delamination performance of polyvinyl-butyral laminated glass by through-cracked tensile tests. Construction and Building Materials, 2022, 341, 127914.	3.2	8
87	The Lagrange Multiplier in Incompressible Elasticity Theory. Journal of Elasticity, 1999, 55, 193-200.	0.9	7
88	The Lagrange multipliers and hyperstress constraint reactions in incompressible multipolar elasticity theory. Journal of the Mechanics and Physics of Solids, 2002, 50, 1627-1647.	2.3	7
89	A proposal for an arch footbridge in Venice made of structural glass masonry. Engineering Structures, 2007, 29, 3015-3025.	2.6	7
90	Bifurcation Instability in Linear Elasticity with the Constraint of Local Injectivity. Journal of Elasticity, 2007, 90, 99-126.	0.9	7

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91	From Non-Linear Elasticity to Linearized Theory: Examples Defying Intuition. Journal of Elasticity, 2009, 96, 1-26.	0.9	7
92	Passive Control of Steel Storage Racks for Parmigiano Reggiano Cheese under Seismic Accelerations. Journal of Earthquake Engineering, 2015, 19, 1222-1259.	1.4	7
93	Closed-Path J-Integral Analysis of Bridged and Phase-Field Cracks. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	1.1	7
94	Post-breakage in-plane stiffness of laminated glass: an engineering approach. Glass Structures and Engineering, 2019, 4, 421-432.	0.8	7
95	Subcritical crack growth parameters in glass as a function of environmental conditions. Glass Structures and Engineering, 2021, 6, 89-101.	0.8	7
96	Strength of the individual glasses of curved, annealed and laminated glass used in automotive windscreens. Engineering Failure Analysis, 2021, 123, 105281.	1.8	7
97	Glass Strength in the Borehole Area of Annealed Float Glass and Tempered Float Glass. International Journal of Forming Processes, 2004, 7, 523-541.	0.3	7
98	Enhanced engineered calculation of the temperature distribution in architectural glazing exposed to solar radiation. Glass Structures and Engineering, 2021, 6, 425-448.	0.8	7
99	Fractional viscoelastic modeling of laminated glass beams in the pre-crack state under explosive loads. International Journal of Solids and Structures, 2022, 248, 111617.	1.3	7
100	A note on the optimal state of a binary solid mixture in a stressed elastic bar. Meccanica, 1996, 31, 519-525.	1.2	6
101	Stress as a Constraint Reaction in Rigid Bodies. Journal of Elasticity, 2004, 74, 265-276.	0.9	6
102	Fullâ€Scale Experiments for Pointâ€Fixing Frameless Laminated Glass. International Journal of Applied Glass Science, 2010, 1, 257-272.	1.0	6
103	Enhanced Effective Thickness (EET) of curved laminated glass. Annals of Solid and Structural Mechanics, 2015, 7, 71-92.	0.5	6
104	A micro-mechanically motivated model for the strength of heat-treated glass. Glass Structures and Engineering, 2018, 3, 153-166.	0.8	6
105	The effect of size and stress state on the strength of architectural glass. Experiments versus theory. Construction and Building Materials, 2021, 283, 122635.	3.2	6
106	A new flexural-tensegrity bow. Mechanism and Machine Theory, 2021, 164, 104398.	2.7	6
107	Symmetric Galerkin BEM for bodies with unconstrained contours. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 961-981.	3.4	5
108	Wiggly strain localizations in peridynamic bars with non-convex potential. International Journal of Solids and Structures, 2018, 138, 1-12.	1.3	5

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109	A statistical model for the failure of glass plates due to nickel sulfide inclusions. Journal of the American Ceramic Society, 2019, 102, 2506-2521.	1.9	5
110	Open issues in the calibration of partial safety factors for heat-treated glass. Structural Safety, 2019, 79, 1-11.	2.8	5
111	Statistical interference of crack healing on the strength of thermally-treated glass. Experiments and modelling. Engineering Fracture Mechanics, 2019, 205, 511-531.	2.0	5
112	Conjugate-beam analogy for inflexed laminates. International Journal of Solids and Structures, 2020, 206, 396-411.	1.3	5
113	Basic design of cable-supported glazed surfaces under blast waves. International Journal of Non-Linear Mechanics, 2020, 123, 103489.	1.4	5
114	A generalized Andersonâ€“Darling test for the goodness-of-fit evaluation of the fracture strain distribution of acrylic glass. Glass Structures and Engineering, 2021, 6, 195-208.	0.8	5
115	How dissipative devices could enhance the capacity of glazed surfaces under impacting blast waves. International Journal of Non-Linear Mechanics, 2021, 137, 103813.	1.4	5
116	Biotâ€™s Variational Method to determine the thermal strain in layered glazings. International Journal of Solids and Structures, 2022, 249, 111657.	1.3	5
117	Optimal Fiber-Mesh Layout for a Composite Anisotropic Elastic Wedge. Journal of Elasticity, 2000, 60, 103-117.	0.9	4
118	In Recognition of the 70th Birthday of Piero Villaggio. Journal of Elasticity, 2002, 68, 3-6.	0.9	4
119	From 3-D Nonlinear Elasticity Theory to 1-D Bars with Nonconvex Energy. Journal of Elasticity, 2003, 70, 87-100.	0.9	4
120	Wedge-shaped fracturing in the pull out of FRP stiffeners from quasi-brittle substrates. International Journal of Solids and Structures, 2014, 51, 3196-3208.	1.3	4
121	Localized contacts, stress concentrations and transient states in bent-lamination with viscoelastic adhesion. An analytical study. International Journal of Mechanical Sciences, 2015, 103, 275-287.	3.6	4
122	Boundary Layer Effects in a Finite Linearly Elastic Peridynamic Bar. Latin American Journal of Solids and Structures, 2018, 15, .	0.6	4
123	Probabilistic considerations about the strength of laminated annealed float glass. Glass Structures and Engineering, 2020, 5, 27-40.	0.8	4
124	Hadamardâ€™s conditions of compatibility from Cesaroâ€™s line-integral representation. International Journal of Engineering Science, 2020, 146, 103174.	2.7	4
125	Energy harnessing in the snap-through motion of a flexural-tensegrity flagellum. Mechanism and Machine Theory, 2022, 173, 104845.	2.7	4
126	A Penalty Interpretation for the Lagrange Multiplier Fields in Incompressible Multipolar Elasticity Theory. Mathematics and Mechanics of Solids, 2005, 10, 389-413.	1.5	3

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127	On the Motive Power of Chemical Transformations inÂOpen Systems. Journal of Elasticity, 2011, 104, 229-248.	0.9	3
128	Piero Villaggio: Representative of the Italian Tradition of Honored Elasticians. Journal of Elasticity, 2014, 116, 103-114.	0.9	3
129	Reprint of: Effective bond length of FRP stiffeners. International Journal of Non-Linear Mechanics, 2014, 66, 126-138.	1.4	3
130	On the occurrence of lumped forces at corners in classical plate theories: a physically based interpretation. Journal of Mechanics of Materials and Structures, 2015, 10, 93-103.	0.4	3
131	Singular Shear-Force States in Elementary Plate Theory. Journal of Elasticity, 2015, 118, 89-99.	0.9	3
132	A probability model for evaluating the effectiveness of the Heat Soak Test. Glass Structures and Engineering, 2019, 4, 377-388.	0.8	3
133	Membrane analogy for multi-material bars under torsion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190124.	1.0	3
134	Plastic hinges as phase transitions in strain softening beams. Journal of Mechanics of Materials and Structures, 2007, 2, 1677-1699.	0.4	3
135	Investigations on the viscoelastic material behaviour and linearity limits of PVB. Ce/Papers, 2021, 4, 207-223.	0.1	3
136	Wrinkled Membranes and Cable-Stayed Bridges. Journal of Bridge Engineering, 1999, 4, 56-62.	1.4	2
137	Nonlinear effects in the vibrations of flexural tensegrity beams. International Journal of Non-Linear Mechanics, 2021, 128, 103616.	1.4	2
138	Engineered modelling of the soft-body impact test on glazed surfaces. Engineering Structures, 2021, 226, 111315.	2.6	2
139	Large deformations and snap-through instability of cold-bent glass. , 2014, , 681-689.		2
140	Calibration of the Statistical-Interference Factors for the Design of Tempered Structural Glass. Journal of Engineering Mechanics - ASCE, 2022, 148, .	1.6	2
141	Slip Bands and Stress Oscillations in Bars. Journal of Elasticity, 2000, 59, 131-143.	0.9	1
142	Interaction of Fractures in Tensile Bars with Non-Local Spatial Dependence. Journal of Elasticity, 2001, 65, 1-31.	0.9	1
143	Large transformations with moderate strains of tensile membrane structures. Mathematics and Mechanics of Solids, 2017, 22, 1717-1737.	1.5	1
144	Soap film analogy for anisotropically stretched membranes and cable nets. Structural and Multidisciplinary Optimization, 2017, 55, 885-898.	1.7	1

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145	Partial safety factors for laminated glass. Journal of the American Ceramic Society, 2020, 103, 2741-2756.	1.9	1
146	How the risk of failure in lifetime of tempered glass depends on the size of NiS inclusions and heat soak test duration. Journal of the American Ceramic Society, 2021, 104, 383-403.	1.9	1
147	The design of laminated glass under time-dependent bending and buckling. , 2014, , 431-438.		1
148	Granular Decohesion Thermal-Damage in Marble Monuments. Lecture Notes in Applied and Computational Mechanics, 2004, , 177-185.	2.0	1
149	Geometry of sliding lamellae dictates the constitutive properties of nacre-like hierarchical materials. Journal of the Mechanics and Physics of Solids, 2022, 167, 105000.	2.3	1
150	From 3-D Nonlinear Elasticity Theory to 1-D Bars with Nonconvex Energy. , 2004, , 87-100.		0
151	Variational Characterization of a Quasi-rigid Body. Journal of Elasticity, 2007, 87, 211-238.	0.9	0
152	Discussion on â€œFailure behavior of annealed glass for building windowsâ€•by B. Navarrete, H. JuÃ¡rez, L. Olmos, J. Guerrero and P. Garnica [Eng. Struct. 141 (2017) 417â€“426]. Engineering Structures, 2018, 171, 1047-1050.	2.6	0
153	More glass; more challenges!. Glass Structures and Engineering, 2018, 3, 121-123.	0.8	0
154	Slip Bands and Stress Oscillations in Bars. , 2000, , 131-143.		0
155	Crossing the Stays of Cable-Stayed Bridges. , 2001, , .		0
156	Damage mechanics model based on structured deformations. , 2003, , 277-279.		0
157	On the Motive Power of Chemical Transformations in Open Systems. , 2011, , 229-248.		0
158	A statistical theory of the strength of epidemics: an application to the Italian COVID-19 case. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200394.	1.0	0
159	Is It True that the Higher the Number of Plies is, the Safer is a Brittle Laminate?. Lecture Notes in Mechanical Engineering, 2020, , 1658-1669.	0.3	0
160	Structural Optimization of Laminated Annealed Glass. Journal of Engineering Mechanics - ASCE, 2020, 146, 04020071.	1.6	0
161	Material Damage Description via Structured Deformations. , 2005, , 235-253.		0