Gianni Royer Carfagni

List of Publications by Year
in descending order

161 papers	2,731 citations	218677 26 h-index	243625 44 g-index
165 all docs	165 docs citations	165 times ranked	1457 citing authors

#	Article	IF	Citations
1	Calibration of the Statistical-Interference Factors for the Design of Tempered Structural Glass. Journal of Engineering Mechanics - ASCE, 2022, 148, .	2.9	2
2	Engineered calculation of the uneven in-plane temperatures in Insulating Glass Units for structural design. Glass Structures and Engineering, 2022, 7, 71-99.	1.7	8
3	A fractional viscoelastic model for laminated glass sandwich plates under blast actions. International Journal of Mechanical Sciences, 2022, 222, 107204.	6.7	21
4	Energy harnessing in the snap-through motion of a flexural-tensegrity flagellum. Mechanism and Machine Theory, 2022, 173, 104845.	4.5	4
5	Fractional viscoelastic modeling of laminated glass beams in the pre-crack state under explosive loads. International Journal of Solids and Structures, 2022, 248, 111617.	2.7	7
6	Biotâ€™s Variational Method to determine the thermal strain in layered glazings. International Journal of Solids and Structures, 2022, 249, 111657.	2.7	5
7	Evaluation of the delamination performance of polyvinyl-butyral laminated glass by through-cracked tensile tests. Construction and Building Materials, 2022, 341, 127914.	7.2	8
8	Geometry of sliding lamellae dictates the constitutive properties of nacre-like hierarchical materials. Journal of the Mechanics and Physics of Solids, 2022, 167, 105000.	4.8	1
9	Nonlinear effects in the vibrations of flexural tensegrity beams. International Journal of Non-Linear Mechanics, 2021, 128, 103616.	2.6	2
10	A nonlocal elastica inspired by flexural tensegrity. International Journal of Engineering Science, 2021, 158, 103421.	5.0	13
11	Engineered modelling of the soft-body impact test on glazed surfaces. Engineering Structures, 2021, 226, 111315.	5.3	2
12	Subcritical crack growth parameters in glass as a function of environmental conditions. Glass Structures and Engineering, 2021, 6, 89-101.	1.7	7
13	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.	3.8	1
14	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.	1.7	5
15	Fractional viscoelastic characterization of laminated glass beams under time-varying loading. International Journal of Mechanical Sciences, 2021, 196, 106274.	6.7	23
16	The effect of size and stress state on the strength of architectural glass. Experiments versus theory. Construction and Building Materials, 2021, 283, 122635.	7.2	6
17	Strength of the individual glasses of curved, annealed and laminated glass used in automotive windscreens. Engineering Failure Analysis, 2021, 123, 105281.	4.0	7
18	Equilibrium of bi-stable flexural-tensegrity segmental beams. Journal of the Mechanics and Physics of Solids, 2021, 152, 104411.	4.8	8

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19	A new flexural-tensegrity bow. Mechanism and Machine Theory, 2021, 164, 104398.	4.5	6
20	How dissipative devices could enhance the capacity of glazed surfaces under impacting blast waves. International Journal of Non-Linear Mechanics, 2021, 137, 103813.	2.6	5
21	Enhanced engineered calculation of the temperature distribution in architectural glazing exposed to solar radiation. Glass Structures and Engineering, 2021, 6, 425-448.	1.7	7
22	Investigations on the viscoelastic material behaviour and linearity limits of PVB. Ce/Papers, 2021, 4, 207-223.	0.3	3
23	Probabilistic considerations about the strength of laminated annealed float glass. Glass Structures and Engineering, 2020, 5, 27-40.	1.7	4
24	Hadamardâ€™s conditions of compatibility from Cesaroâ€™s line-integral representation. International Journal of Engineering Science, 2020, 146, 103174.	5.0	4
25	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.	5.0	12
26	Partial safety factors for laminated glass. Journal of the American Ceramic Society, 2020, 103, 2741-2756.	3.8	1
27	Bettiâ€™s Analytical Method for the load sharing in double glazed units. Composite Structures, 2020, 235, 111765.	5.8	18
28	Conjugate-beam analogy for inflexed laminates. International Journal of Solids and Structures, 2020, 206, 396-411.	2.7	5
29	Flexural tensegrity of segmental beams. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, .	2.1	8
30	Blast loads and nonlinear vibrations of laminated glass plates in an enhanced shear deformation theory. Composite Structures, 2020, 252, 112720.	5.8	17
31	Greenâ€™s functions for the load sharing in multiple insulating glazing units. International Journal of Solids and Structures, 2020, 206, 412-425.	2.7	12
32	Basic design of cable-supported glazed surfaces under blast waves. International Journal of Non-Linear Mechanics, 2020, 123, 103489.	2.6	5
33	Enhanced Effective Thickness for laminated glass beams and plates under torsion. Engineering Structures, 2020, 206, 110077.	5.3	17
34	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.	2.1	0
35	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.	0.4	0
36	Structural Optimization of Laminated Annealed Glass. Journal of Engineering Mechanics - ASCE, 2020, 146, 04020071.	2.9	0

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37	A statistical model for the failure of glass plates due to nickel sulfide inclusions. Journal of the American Ceramic Society, 2019, 102, 2506-2521.	3.8	5
38	Post-breakage in-plane stiffness of laminated glass: an engineering approach. Glass Structures and Engineering, 2019, 4, 421-432.	1.7	7
39	A probability model for evaluating the effectiveness of the Heat Soak Test. Glass Structures and Engineering, 2019, 4, 377-388.	1.7	3
40	Redundancy and robustness of brittle laminated plates. Overlooked aspects in structural glass. Composite Structures, 2019, 227, 111288.	5.8	10
41	The effective tensile and bending stiffness of nanotube fibers. International Journal of Mechanical Sciences, 2019, 163, 105089.	6.7	8
42	A simple model for the post-breakage response of laminated glass under in-plane loading. Composite Structures, 2019, 230, 111426.	5.8	11
43	Membrane analogy for multi-material bars under torsion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190124.	2.1	3
44	Open issues in the calibration of partial safety factors for heat-treated glass. Structural Safety, 2019, 79, 1-11.	5.3	5
45	A non-smooth-contact-dynamics analysis of Brunelleschiâ€™s cupola: an octagonal vault or a circular dome?. Meccanica, 2019, 54, 525-547.	2.0	14
46	Modeling the shear failure of segmental arches. International Journal of Solids and Structures, 2019, 158, 21-39.	2.7	17
47	Statistical interference of crack healing on the strength of thermally-treated glass. Experiments and modelling. Engineering Fracture Mechanics, 2019, 205, 511-531.	4.3	5
48	Architectural Glass. Springer Handbooks, 2019, , 1781-1819.	0.6	11
49	A micro-mechanically motivated model for the strength of heat-treated glass. Glass Structures and Engineering, 2018, 3, 153-166.	1.7	6
50	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.	12.0	42
51	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.	2.1	23
52	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.	5.3	0
53	Wiggly strain localizations in peridynamic bars with non-convex potential. International Journal of Solids and Structures, 2018, 138, 1-12.	2.7	5
54	More glass; more challenges!. Glass Structures and Engineering, 2018, 3, 121-123.	1.7	0

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55	Fluidic Microactuation of Flexible Electrodes for Neural Recording. Nano Letters, 2018, 18, 326-335.	9.1	84
56	Boundary Layer Effects in a Finite Linearly Elastic Peridynamic Bar. Latin American Journal of Solids and Structures, 2018, 15, .	1.0	4
57	Bending behavior of CNT fibers and their scaling laws. Soft Matter, 2018, 14, 8284-8292.	2.7	18
58	Large transformations with moderate strains of tensile membrane structures. Mathematics and Mechanics of Solids, 2017, 22, 1717-1737.	2.4	1
59	A regularized non-smooth contact dynamics approach for architectural masonry structures. Computers and Structures, 2017, 187, 88-100.	4.4	32
60	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.	5.7	20
61	Statistical interference of material strength and surface prestress in heatâ€treated glass. Journal of the American Ceramic Society, 2017, 100, 954-967.	3.8	12
62	Biaxially curved glass with large radiiâ€”determination of strength using the coaxial double ring test. Glass Structures and Engineering, 2017, 2, 121-131.	1.7	8
63	An enhanced nonâ€“local failure criterion for laminated glass under low velocity impact. International Journal of Impact Engineering, 2017, 109, 342-353.	5.0	40
64	Soap film analogy for anisotropically stretched membranes and cable nets. Structural and Multidisciplinary Optimization, 2017, 55, 885-898.	3.5	1
65	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.	12.0	27
66	Closed-Path J-Integral Analysis of Bridged and Phase-Field Cracks. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	2.2	7
67	Phase-field slip-line theory of plasticity. Journal of the Mechanics and Physics of Solids, 2016, 94, 257-272.	4.8	37
68	The Lower Bound for Glass Strength and Its Interpretation with Generalized Weibull Statistics for Structural Applications. Journal of Engineering Mechanics - ASCE, 2016, 142, .	2.9	45
69	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.	7.2	21
70	A homogenized model for the post-breakage tensile behavior of laminated glass. Composite Structures, 2016, 154, 600-615.	5.8	45
71	Simulating soft body impact on glass structures. Proceedings of the Institution of Civil Engineers: Structures and Buildings, 2016, 169, 416-431.	0.8	14
72	Effective Width of the Slab in Composite Beams with Nonlinear Shear Connection. Journal of Engineering Mechanics - ASCE, 2016, 142, .	2.9	10

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73	Stress relaxation in tempered glass caused by heat soak testing. Engineering Structures, 2016, 122, 42-49.	5.3	19
74	Towards a new standardized configuration for the coaxial double test for float glass. Engineering Structures, 2016, 119, 149-163.	5.3	21
75	A Newtonian interpretation of configurational forces on dislocations and cracks. Journal of the Mechanics and Physics of Solids, 2016, 95, 602-620.	4.8	16
76	Contact stresses in adhesive joints due to differential thermal expansion with the adherends. International Journal of Solids and Structures, 2016, 87, 26-38.	2.7	11
77	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.	0.6	3
78	Critical issues in the design-by-testing of annealed glass components. Engineering Structures, 2015, 99, 108-119.	5.3	8
79	Optimal cold bending of laminated glass. International Journal of Solids and Structures, 2015, 67-68, 231-243.	2.7	17
80	Analytical approach Ã la Newmark for curved laminated glass. Composites Part B: Engineering, 2015, 76, 65-78.	12.0	19
81	Enhanced Effective Thickness (EET) of curved laminated glass. Annals of Solid and Structural Mechanics, 2015, 7, 71-92.	0.5	6
82	Cold-lamination-bending of glass: Sinusoidal is better than circular. Composites Part B: Engineering, 2015, 79, 285-300.	12.0	12
83	Shear coupling effects of the core in curved sandwich beams. Composites Part B: Engineering, 2015, 76, 320-331.	12.0	16
84	Passive Control of Steel Storage Racks for Parmigiano Reggiano Cheese under Seismic Accelerations. Journal of Earthquake Engineering, 2015, 19, 1222-1259.	2.5	7
85	The statistical interpretation of the strength of float glass for structural applications. Construction and Building Materials, 2015, 98, 741-756.	7.2	37
86	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.	6.7	4
87	Verification formulae for structural glass under combined variable loads. Engineering Structures, 2015, 83, 233-242.	5.3	10
88	Singular Shear-Force States in Elementary Plate Theory. Journal of Elasticity, 2015, 118, 89-99.	1.9	3
89	Enhanced Effective Thickness of multi-layered laminated glass. Composites Part B: Engineering, 2014, 64, 202-213.	12.0	74
90	Cohesive debonding of a stiffener from an elastic substrate. Composite Structures, 2014, 111, 401-414.	5.8	12

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91	Safety factors for the structural design of glass. Construction and Building Materials, 2014, 55, 114-127.	7.2	44
92	Plastic Flow as an Energy Minimization Problem. Numerical Experiments. Journal of Elasticity, 2014, 116, 53-74.	1.9	17
93	Piero Villaggio: Representative of the Italian Tradition of Honored Elasticians. Journal of Elasticity, 2014, 116, 103-114.	1.9	3
94	Rheology of cold-lamination-bending for curved glazing. Engineering Structures, 2014, 61, 140-152.	5.3	11
95	Reprint of: Effective bond length of FRP stiffeners. International Journal of Non-Linear Mechanics, 2014, 66, 126-138.	2.6	3
96	Flexural strength of glassâ€“ceramic for structural applications. Journal of the European Ceramic Society, 2014, 34, 2675-2685.	5.7	20
97	Effective bond length of FRP stiffeners. International Journal of Non-Linear Mechanics, 2014, 60, 46-57.	2.6	46
98	Buckling phenomena in double curved cold-bent glass. International Journal of Non-Linear Mechanics, 2014, 64, 70-84.	2.6	29
99	Wedge-shaped fracturing in the pull out of FRP stiffeners from quasi-brittle substrates. International Journal of Solids and Structures, 2014, 51, 3196-3208.	2.7	4
100	Buckling of three-layered composite beams with viscoelastic interaction. Composite Structures, 2014, 107, 512-521.	5.8	56
101	The design of laminated glass under time-dependent bending and buckling. , 2014, , 431-438.		1
102	Large deformations and snap-through instability of cold-bent glass. , 2014, , 681-689.		2
103	Energetic balance in the debonding of a reinforcing stringer: Effect of the substrate elasticity. International Journal of Solids and Structures, 2013, 50, 1954-1965.	2.7	11
104	The effective thickness of laminated glass: Inconsistency of the formulation in a proposal of EN-standards. Composites Part B: Engineering, 2013, 55, 109-118.	12.0	35
105	The design of laminated glass under time-dependent loading. International Journal of Mechanical Sciences, 2013, 68, 67-75.	6.7	46
106	Cable-stiffened foldable elastica for movable structures. Engineering Structures, 2013, 56, 126-136.	5.3	13
107	Practical expressions for the design of laminated glass. Composites Part B: Engineering, 2013, 45, 1677-1688.	12.0	75
108	A Variational Model for Plastic Slip and Its Regularization via Î“-Convergence. Journal of Elasticity, 2013, 110, 201-235.	1.9	20

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109	The effective thickness of laminated glass plates. Journal of Mechanics of Materials and Structures, 2012, 7, 375-400.	0.6	72
110	Laminated beams with viscoelastic interlayer. International Journal of Solids and Structures, 2012, 49, 2637-2645.	2.7	109
111	Effective thickness of laminated glass beams: New expression via a variational approach. Engineering Structures, 2012, 38, 53-67.	5.3	152
112	On the Motive Power of Chemical Transformations inÂOpen Systems. Journal of Elasticity, 2011, 104, 229-248.	1.9	3
113	Variational fracture mechanics to model compressive splitting of masonry-like materials. Annals of Solid and Structural Mechanics, 2011, 2, 57-67.	0.5	29
114	Zwei Verfahren zum rechnerischen Nachweis der dynamischen Beanspruchung von Verglasungen durch weichen StoÃŸ. Stahlbau, 2011, 80, 81-87.	0.1	12
115	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.	4.8	19
116	On the Motive Power of Chemical Transformations in Open Systems. , 2011, , 229-248.		0
117	Regularized variational theories of fracture: A unified approach. Journal of the Mechanics and Physics of Solids, 2010, 58, 1154-1174.	4.8	155
118	Fullâ€Scale Experiments for Pointâ€Fixing Frameless Laminated Glass. International Journal of Applied Glass Science, 2010, 1, 257-272.	2.0	6
119	The Variational Approach to Fracture Mechanics. AÂPractical Application to the French PanthÃ©on in Paris. Journal of Elasticity, 2009, 95, 1-30.	1.9	119
120	From Non-Linear Elasticity to Linearized Theory: Examples Defying Intuition. Journal of Elasticity, 2009, 96, 1-26.	1.9	7
121	Fail-safe point fixing of structural glass. New advances. Engineering Structures, 2009, 31, 1661-1676.	5.3	17
122	A proposal for an arch footbridge in Venice made of structural glass masonry. Engineering Structures, 2007, 29, 3015-3025.	5.3	7
123	Variational Characterization of a Quasi-rigid Body. Journal of Elasticity, 2007, 87, 211-238.	1.9	0
124	Bifurcation Instability in Linear Elasticity with the Constraint of Local Injectivity. Journal of Elasticity, 2007, 90, 99-126.	1.9	7
125	Plastic hinges as phase transitions in strain softening beams. Journal of Mechanics of Materials and Structures, 2007, 2, 1677-1699.	0.6	3
126	Symmetric Galerkin BEM for bodies with unconstrained contours. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 961-981.	6.6	5

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127	Chemomechanical Equilibrium of Bars. Journal of Elasticity, 2006, 84, 167-188.	1.9	11
128	Structured deformation of damaged continua with cohesive-frictional sliding rough fractures. European Journal of Mechanics, A/Solids, 2005, 24, 644-660.	3.7	13
129	A Stokes theorem for second-order tensor fields and its implications in continuum mechanics. International Journal of Non-Linear Mechanics, 2005, 40, 381-386.	2.6	21
130	A Penalty Interpretation for the Lagrange Multiplier Fields in Incompressible Multipolar Elasticity Theory. Mathematics and Mechanics of Solids, 2005, 10, 389-413.	2.4	3
131	Material Damage Description via Structured Deformations. , 2005, , 235-253.		0
132	Separation of Scales in Fracture Mechanics: From Molecular to Continuum Theory via Î“ Convergence. Journal of Engineering Mechanics - ASCE, 2004, 130, 204-215.	2.9	10
133	Stress as a Constraint Reaction in Rigid Bodies. Journal of Elasticity, 2004, 74, 265-276.	1.9	6
134	From 3-D Nonlinear Elasticity Theory to 1-D Bars with Nonconvex Energy. , 2004, , 87-100.		0
135	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
136	Granular Decohesion Thermal-Damage in Marble Monuments. Lecture Notes in Applied and Computational Mechanics, 2004, , 177-185.	2.2	1
137	From 3-D Nonlinear Elasticity Theory to 1-D Bars with Nonconvex Energy. Journal of Elasticity, 2003, 70, 87-100.	1.9	4
138	Parametric-resonance-induced cable vibrations in network cable-stayed bridges. A continuum approach. Journal of Sound and Vibration, 2003, 262, 1191-1222.	3.9	19
139	Damage mechanics model based on structured deformations. , 2003, , 277-279.		0
140	The Lagrange multipliers and hyperstress constraint reactions in incompressible multipolar elasticity theory. Journal of the Mechanics and Physics of Solids, 2002, 50, 1627-1647.	4.8	7
141	In Recognition of the 70th Birthday of Piero Villaggio. Journal of Elasticity, 2002, 68, 3-6.	1.9	4
142	The constraint of local injectivity in linear elasticity theory. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2001, 457, 2167-2187.	2.1	26
143	Can a moment-curvature relationship describe the flexion of softening beams?. European Journal of Mechanics, A/Solids, 2001, 20, 253-276.	3.7	16
144	The web bridge. International Journal of Solids and Structures, 2001, 38, 8831-8850.	2.7	17

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145	Interaction of Fractures in Tensile Bars with Non-Local Spatial Dependence. Journal of Elasticity, 2001, 65, 1-31.	1.9	1
146	Crossing the Stays of Cable-Stayed Bridges. , 2001, , .		0
147	The characterization of marble by cyclic compression loading: experimental results. International Journal for Numerical and Analytical Methods in Geomechanics, 2000, 5, 535-563.	0.8	33
148	A mechanical model for the elasticâ€“plastic behavior of metallic bars. International Journal of Solids and Structures, 2000, 37, 3901-3918.	2.7	23
149	Multiple Natural States for an Elastic Isotropic Material with Polyconvex Stored Energy. Journal of Elasticity, 2000, 60, 223-231.	1.9	10
150	Slip Bands and Stress Oscillations in Bars. Journal of Elasticity, 2000, 59, 131-143.	1.9	1
151	Optimal Fiber-Mesh Layout for a Composite Anisotropic Elastic Wedge. Journal of Elasticity, 2000, 60, 103-117.	1.9	4
152	Slip Bands and Stress Oscillations in Bars. , 2000, , 131-143.		0
153	Discontinuous Deformation of Tensile Steel Bars: Experimental Results. Journal of Engineering Mechanics - ASCE, 1999, 125, 1243-1250.	2.9	15
154	Wrinkled Membranes and Cable-Stayed Bridges. Journal of Bridge Engineering, 1999, 4, 56-62.	2.9	2
155	On the thermal degradation of marble. International Journal of Rock Mechanics and Minings Sciences, 1999, 36, 119-126.	5.8	68
156	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.	7.2	42
157	A SEM investigation on fatigue damage of marble. Journal of Materials Science Letters, 1999, 18, 1619-1622.	0.5	13
158	The Lagrange Multiplier in Incompressible Elasticity Theory. Journal of Elasticity, 1999, 55, 193-200.	1.9	7
159	The static state of a two-phase solid mixture in a stressed elastic bar. International Journal of Solids and Structures, 1996, 33, 2267-2281.	2.7	11
160	A note on the optimal state of a binary solid mixture in a stressed elastic bar. Meccanica, 1996, 31, 519-525.	2.0	6
161	Alloy separation of a binary mixture in a stressed elastic sphere. Journal of Elasticity, 1996, 42, 49-77.	1.9	8