Fred van Keulen

List of Publications by Year
in descending order

179 papers	4,960 citations	136885 32 h-index	114418 63 g-index
180 all docs	180 docs citations	180 times ranked	3966 citing authors

#	Article	IF	Citations
1	Level-set methods for structural topology optimization: a review. Structural and Multidisciplinary Optimization, 2013, 48, 437-472.	1.7	682
2	Celebrating the 100th anniversary of the Stoney equation for film stress: Developments from polycrystalline steel strips to single crystal silicon wafers. Thin Solid Films, 2009, 517, 1858-1867.	0.8	567
3	Review of options for structural design sensitivity analysis. Part 1: Linear systems. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 3213-3243.	3.4	242
4	Characterizing size-dependent effective elastic modulus of silicon nanocantilevers using electrostatic pull-in instability. Applied Physics Letters, 2009, 94, .	1.5	138
5	A finite-element analysis model of orbital biomechanics. Vision Research, 2006, 46, 1724-1731.	0.7	90
6	A unified aggregation and relaxation approach for stress-constrained topology optimization. Structural and Multidisciplinary Optimization, 2017, 55, 663-679.	1.7	88
7	Simulation of fracture healing incorporating mechanoregulation of tissue differentiation and dispersal/proliferation of cells. Biomechanics and Modeling in Mechanobiology, 2008, 7, 443-461.	1.4	76
8	Polymeric Thermal Microactuator With Embedded Silicon Skeleton: Part Iâ€”Design and Analysis. Journal of Microelectromechanical Systems, 2008, 17, 809-822.	1.7	75
9	Space-time topology optimization for additive manufacturing. Structural and Multidisciplinary Optimization, 2020, 61, 1-18.	1.7	73
10	Development and experimental validation of a three-dimensional finite element model of the human scapula. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2004, 218, 127-142.	1.0	70
11	Bone ingrowth simulation for a concept glenoid component design. Journal of Biomechanics, 2005, 38, 1023-1033.	0.9	70
12	Generalized Continuum Theories: Application to Stress Analysis in Bone*. Meccanica, 2002, 37, 385-396.	1.2	69
13	A semi-analytical thermal modelling approach for selective laser melting. Additive Manufacturing, 2018, 21, 284-297.	1.7	67
14	Topology optimization using a topology description function. Structural and Multidisciplinary Optimization, 2004, 26, 406-416.	1.7	66
15	Effects of size and defects on the elasticity of silicon nanocantilevers. Journal of Micromechanics and Microengineering, 2010, 20, 064012.	1.5	66
16	Numerical simulation of tissue differentiation around loaded titanium implants in a bone chamber. Journal of Biomechanics, 2004, 37, 763-769.	0.9	63
17	Stress analysis of cemented glenoid prostheses in Total Shoulder Arthroplasty. Journal of Biomechanics, 2004, 37, 1777-1786.	0.9	58
18	Explicit levelâ€setâ€based topology optimization using an exact Heaviside function and consistent sensitivity analysis. International Journal for Numerical Methods in Engineering, 2012, 91, 67-97.	1.5	58

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19	Continuous front propagation-based overhang control for topology optimization with additive manufacturing. Structural and Multidisciplinary Optimization, 2018, 57, 2075-2091.	1.7	56
20	Rigorous improvement of semi-analytical design sensitivities by exact differentiation of rigid body motions. International Journal for Numerical Methods in Engineering, 1998, 42, 71-91.	1.5	55
21	On the size-dependent elasticity of silicon nanocantilevers: impact of defects. Journal Physics D: Applied Physics, 2011, 44, 072001.	1.3	52
22	A predictive quasi-steady model of aerodynamic loads on flapping wings. Journal of Fluid Mechanics, 2016, 800, 688-719.	1.4	52
23	Damage approach: A new method for topology optimization with local stress constraints. Structural and Multidisciplinary Optimization, 2016, 53, 1081-1098.	1.7	49
24	Efficient Kriging-based robust optimization of unconstrained problems. Journal of Computational Science, 2014, 5, 872-881.	1.5	48
25	Dynamic mechanical properties of 3D fiber-deposited PEOT/PBT scaffolds: An experimental and numerical analysis. Journal of Biomedical Materials Research - Part A, 2006, 78A, 605-614.	2.1	46
26	Effects of size and surface on the elasticity of silicon nanoplates: Molecular dynamics and semi-continuum approaches. Thin Solid Films, 2011, 520, 391-399.	0.8	43
27	Refined semi-analytical design sensitivities. International Journal of Solids and Structures, 2000, 37, 6961-6980.	1.3	41
28	An efficient fluidâ€“structure interaction model for optimizing twistable flapping wings. Journal of Fluids and Structures, 2017, 73, 82-99.	1.5	40
29	Experimental investigation of the strength and stability of submarine pressure hulls with and without artificial corrosion damage. Marine Structures, 2010, 23, 339-359.	1.6	39
30	The possibilities of uncemented glenoid componentâ€“â€“a finite element study. Clinical Biomechanics, 2004, 19, 292-302.	0.5	38
31	Design Overview of a Resonant Wing Actuation Mechanism for Application in Flapping Wing MAVs. International Journal of Micro Air Vehicles, 2009, 1, 263-272.	1.0	38
32	An improved stress recovery technique for lowâ€•order 3D finite elements. International Journal for Numerical Methods in Engineering, 2018, 114, 88-103.	1.5	38
33	Design and characterization of multi-stable mechanical metastructures with level and tilted stable configurations. Extreme Mechanics Letters, 2020, 34, 100593.	2.0	35
34	Overhang control based on front propagation in 3D topology optimization for additive manufacturing. Computer Methods in Applied Mechanics and Engineering, 2020, 369, 113169.	3.4	34
35	Framework for sequential approximate optimization. Structural and Multidisciplinary Optimization, 2004, 27, 384.	1.7	32
36	Efficient Finite Difference Design Sensitivities. AIAA Journal, 2005, 43, 399-405.	1.5	31

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37	Interface micromotions increase with less-conforming cementless glenoid components. Journal of Shoulder and Elbow Surgery, 2012, 21, 474-482.	1.2	30
38	Topology optimization for submerged buoyant structures. Engineering Optimization, 2017, 49, 1-21.	1.5	29
39	Topology optimization for linear thermoâ€mechanical transient problems: Modal reduction and adjoint sensitivities. International Journal for Numerical Methods in Engineering, 2018, 113, 1230-1257.	1.5	29
40	A modal derivatives enhanced Rubin substructuring method for geometrically nonlinear multibody systems. Multibody System Dynamics, 2019, 45, 57-85.	1.7	29
41	Topology Optimization for additive manufacturing with distortion constraints. Computer Methods in Applied Mechanics and Engineering, 2021, 386, 114095.	3.4	29
42	Prediction of torsional failure in 22 cadaver femora with and without simulated subtrochanteric metastatic defects: A CT scan-based finite element analysis. Monthly Notices of the Royal Astronomical Society: Letters, 2006, 77, 474-481.	1.2	28
43	Quantifying the accuracy of numerical collapse predictions for the design of submarine pressure hulls. Thin-Walled Structures, 2011, 49, 145-156.	2.7	28
44	Element deformation scaling for robust geometrically nonlinear analyses in topology optimization. Structural and Multidisciplinary Optimization, 2014, 50, 537-560.	1.7	28
45	REFINED CONSISTENT FORMULATION OF A CURVED TRIANGULAR FINITE ROTATION SHELL ELEMENT. International Journal for Numerical Methods in Engineering, 1996, 39, 2803-2820.	1.5	27
46	Elastic stiffness analysis of a thermo-formed plain-weave fabric composite. Composites Science and Technology, 2000, 60, 1041-1053.	3.8	27
47	NEW DEVELOPMENTS IN STRUCTURAL OPTIMIZATION USING ADAPTIVE MESH REFINEMENT AND MULTIPOINT APPROXIMATIONS. Engineering Optimization, 1997, 29, 217-234.	1.5	26
48	Controlling Incision-Induced Distortion of Nasal Septal Cartilage: A Model to Predict the Effect of Scoring of Rabbit Septa. Plastic and Reconstructive Surgery, 2003, 111, 1948-1957.	0.7	26
49	Powerful polymeric thermal microactuator with embedded silicon microstructure. Applied Physics Letters, 2007, 90, 214103.	1.5	26
50	A stable discontinuity-enriched finite element method for 3-D problems containing weak and strong discontinuities. Computer Methods in Applied Mechanics and Engineering, 2019, 355, 1097-1123.	3.4	26
51	3-D geometric modeling of a draped woven fabric. Composite Structures, 2001, 54, 179-195.	3.1	25
52	Multi-fidelity optimization of laminated conical shells for buckling. Structural and Multidisciplinary Optimization, 2005, 30, 128-141.	1.7	25
53	Surface stress-induced change in overall elastic behavior and self-bending of ultrathin cantilever plates. Applied Physics Letters, 2009, 94, .	1.5	25
54	Nonlinear thin shell analysis using a curved triangular element. Computer Methods in Applied Mechanics and Engineering, 1993, 103, 315-343.	3.4	24

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55	Effect of pressure on nonlinear dynamics and instability of electrically actuated circular micro-plates. Nonlinear Dynamics, 2018, 91, 2157-2170.	2.7	24
56	A stable interfaceâ€enriched formulation for immersed domains with strong enforcement of essential boundary conditions. International Journal for Numerical Methods in Engineering, 2019, 120, 1163-1183.	1.5	23
57	Computational Mechanobiology to Study the Effect of Surface Geometry on Peri-Implant Tissue Differentiation. Journal of Biomechanical Engineering, 2008, 130, 051015.	0.6	22
58	Assessment of testing methodologies for thin-film vacuum MEMS packages. Microsystem Technologies, 2009, 15, 161-168.	1.2	22
59	Error analysis of refined semianalytical design sensitivities. Structural Optimization, 1997, 14, 242-247.	0.7	21
60	A computationally efficient thermal model for selective laser melting. Additive Manufacturing, 2020, 31, 100955.	1.7	21
61	A geometrically nonlinear curved shell element with constant stress resultants. Computer Methods in Applied Mechanics and Engineering, 1993, 106, 315-352.	3.4	20
62	Lateral deformation of plastic bottles: experiments, simulations and prevention. Packaging Technology and Science, 1998, 11, 91-117.	1.3	20
63	Topology optimization of planar shape memory alloy thermal actuators using element connectivity parameterization. International Journal for Numerical Methods in Engineering, 2011, 88, 817-840.	1.5	20
64	Optimizing front metallization patterns: Efficiency with aesthetics in free-form solar cells. Renewable Energy, 2016, 86, 1332-1339.	4.3	20
65	Experimental characterization of graphene by electrostatic resonance frequency tuning. Journal of Applied Physics, 2017, 122, 234302.	1.1	20
66	Gradient-enhanced response surface building. Structural and Multidisciplinary Optimization, 2004, 27, 337.	1.7	19
67	Actuated elastomers with rigid vertical electrodes. Journal of Micromechanics and Microengineering, 2006, 16, S35-S44.	1.5	19
68	Application of electrostatic pull-in instability on sensing adsorbate stiffness in nanomechanical resonators. Thin Solid Films, 2010, 518, 5018-5021.	0.8	19
69	Modeling of shape memory alloy shells for design optimization. Computers and Structures, 2008, 86, 955-963.	2.4	18
70	A SOI Pirani sensor with triple heat sinks. Sensors and Actuators A: Physical, 2010, 162, 267-271.	2.0	18
71	Topology optimization of MEMS considering etching uncertainties using the levelâ€set method. International Journal for Numerical Methods in Engineering, 2012, 92, 571-588.	1.5	18
72	Bone remodelling around a cementless glenoid component. Biomechanics and Modeling in Mechanobiology, 2012, 11, 903-913.	1.4	18

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73	Topology optimization of front metallization patterns for solar cells. Structural and Multidisciplinary Optimization, 2015, 51, 941-955.	1.7	18
74	Minimizing tip-sample forces and enhancing sensitivity in atomic force microscopy with dynamically compliant cantilevers. Journal of Applied Physics, 2017, 121, 244505.	1.1	18
75	Design and analysis adaptivity in multiresolution topology optimization. International Journal for Numerical Methods in Engineering, 2020, 121, 450-476.	1.5	18
76	Cosserat moduli of anisotropic cancellous bone: AÂmicromechanical analysis. European Physical Journal Special Topics, 2003, 105, 273-280.	0.2	17
77	Modeling of Initially Curved Beam Structures for Design of Multistable MEMS. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	1.1	17
78	Partial safety factor approach to the design of submarine pressure hulls using nonlinear finite element analysis. Finite Elements in Analysis and Design, 2013, 65, 1-16.	1.7	17
79	Experimental Study of Numerical Optimization for 3-D Microstructuring Using DMD-Based Grayscale Lithography. Journal of Microelectromechanical Systems, 2015, 24, 1856-1867.	1.7	17
80	Electrostatic instability of micro-plates subjected to differential pressure: AÂsemi-analyticalÂapproach. International Journal of Mechanical Sciences, 2018, 138-139, 210-218.	3.6	17
81	Fast Detection of Heat Accumulation in Powder Bed Fusion Using Computationally Efficient Thermal Models. Materials, 2020, 13, 4576.	1.3	17
82	A Review of External Pressure Testing Techniques for Shells including a Novel Volume-Control Method. Experimental Mechanics, 2010, 50, 753-772.	1.1	16
83	Capturing the effect of thickness on size-dependent behavior of plates with nonlocal theory. International Journal of Solids and Structures, 2017, 115-116, 140-148.	1.3	16
84	QR-patterns: artefacts in multiresolution topology optimization. Structural and Multidisciplinary Optimization, 2018, 58, 1335-1350.	1.7	16
85	An interface-enriched generalized finite element method for level set-based topology optimization. Structural and Multidisciplinary Optimization, 2021, 63, 1-20.	1.7	15
86	Sensitivity analysis of shape memory alloy shells. Computers and Structures, 2008, 86, 964-976.	2.4	14
87	Failure analysis of a thin-film nitride MEMS package. Microelectronics Reliability, 2008, 48, 1557-1561.	0.9	14
88	Influence of the positioning of a cementless glenoid prosthesis on its interface micromotions. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2009, 223, 795-804.	1.0	14
89	A level-set based topology optimization using the element connectivity parameterization method. Structural and Multidisciplinary Optimization, 2010, 42, 269-282.	1.7	14
90	Effects of Surface Stress on Nanocantilevers. E-Journal of Surface Science and Nanotechnology, 2009, 7, 161-166.	0.1	14

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91	An in-plane thermal unimorph using confined polymers. Journal of Micromechanics and Microengineering, 2007, 17, S174-S183.	1.5	13
92	Surface reconstruction and elastic behavior of silicon nanobeams: The impact of applied deformation. Thin Solid Films, 2010, 518, 3273-3275.	0.8	13
93	Interface Reduction with Multilevel Craigâ€“Bampton Substructuring for Component Mode Synthesis. AIAA Journal, 2018, 56, 2030-2044.	1.5	13
94	On tailoring fracture resistance of brittle structures: A level set interface-enriched topology optimization approach. Computer Methods in Applied Mechanics and Engineering, 2022, 388, 114189.	3.4	13
95	PadÃ© approximants applied to a non-linear finite element solution strategy. Communications in Numerical Methods in Engineering, 1997, 13, 593-602.	1.3	12
96	Elastic stiffness analysis of a thermo-formed plain-weave fabric compositeâ€”part III: experimental verification. Composites Science and Technology, 2002, 62, 401-418.	3.8	12
97	Integrating topology optimization in precision motion system design for optimal closed-loop control performance. Mechatronics, 2017, 47, 1-13.	2.0	12
98	Simulation of closed thin-walled structures partially filled with fluid. International Journal of Solids and Structures, 2000, 37, 6063-6083.	1.3	11
99	Theoretical aspects of the internal element connectivity parameterization approach for topology optimization. International Journal for Numerical Methods in Engineering, 2008, 76, 775-797.	1.5	11
100	Efficient limitation of resonant peaks by topology optimization including modal truncation augmentation. Structural and Multidisciplinary Optimization, 2020, 61, 2557-2575.	1.7	11
101	Accessibility of support structures in topology optimization for additive manufacturing. International Journal for Numerical Methods in Engineering, 2021, 122, 2038-2056.	1.5	11
102	Overhang control in topology optimization: a comparison of continuous front propagation-based and discrete layer-by-layer overhang control. Structural and Multidisciplinary Optimization, 2021, 64, 761.	1.7	11
103	Fully decoupling geometry from discretization in the Blochâ€“Floquet finite element analysis of phononic crystals. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113848.	3.4	11
104	Integrated topology and controller optimization of motion systems in the frequency domain. Structural and Multidisciplinary Optimization, 2015, 51, 673-685.	1.7	10
105	Optimal pitching axis location of flapping wings for efficient hovering flight. Bioinspiration and Biomimetics, 2017, 12, 056001.	1.5	10
106	Shape optimization of thermoformed continuous fibre reinforced thermoplastic products. Structural Optimization, 1996, 11, 228-234.	0.7	9
107	Insect-inspired wing actuation structures based on ring-type resonators. , 2008, , .		9
108	Effect of rotator cuff dysfunction on the initial mechanical stability of cementless glenoid components. Medical and Biological Engineering and Computing, 2009, 47, 507-514.	1.6	9

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109	A simple R-phase transformation model for engineering purposes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 378, 507-512.	2.6	8
110	Delamination analysis of Cu/low-k technology subjected to chemical-mechanical polishing process conditions. Microelectronics Reliability, 2006, 46, 1679-1684.	0.9	8
111	Design optimization of shape memory alloy active structures using the R-phase transformation. , 2007, , .		8
112	Outgassing of materials used for thin film vacuum packages. , 2009, , .		8
113	Optimum Design of Polymeric Thermal Microactuator With Embedded Silicon Skeleton. Journal of Microelectromechanical Systems, 2010, 19, 992-1001.	1.7	8
114	Some considerations of effects-induced errors in resonant cantilevers with the laser deflection method. Journal of Micromechanics and Microengineering, 2010, 20, 105027.	1.5	8
115	Bi-stability of micro-plates: A sensitive mechanism for differential pressure measurements. Applied Physics Letters, 2017, 111, .	1.5	8
116	A simple and versatile topology optimization formulation for flexure synthesis. Mechanism and Machine Theory, 2022, 172, 104743.	2.7	8
117	Controlling local overheating in topology optimization for additive manufacturing. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	8
118	Temperature sensitivity of silicon cantileversâ€™ elasticity with the electrostatic pull-in instability. Sensors and Actuators A: Physical, 2010, 162, 220-224.	2.0	7
119	Bounds for decoupled design and analysis discretizations in topology optimization. International Journal for Numerical Methods in Engineering, 2017, 111, 88-100.	1.5	7
120	Topology Optimization: Approaching the Material Distribution Problem using a Topological Function Description. , 0, , .		7
121	Realization and assessment of metal additive manufacturing and topology optimization for high-precision motion systems. Additive Manufacturing, 2022, 58, 103012.	1.7	7
122	Electro-thermally Activated Polymeric Stack for Linear In-plane Actuation. , 2006, , .		6
123	Chaos: The speed limiting phenomenon in dynamic atomic force microscopy. Journal of Applied Physics, 2017, 122, 224306.	1.1	6
124	Simultaneous optimization of topology and layout of modular stiffeners on shells and plates. Structural and Multidisciplinary Optimization, 2021, 64, 3147-3161.	1.7	6
125	Concept and design of a metastructure-based multi-stable surface. Extreme Mechanics Letters, 2022, 51, 101553.	2.0	6
126	Design Optimization of Shape Memory Alloy Structures. , 2004, , .		5

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127	Power Efficient V-Shape Electro-Thermal Actuator using Constrained SU-8. , 2007, , .		5
128	Thermo-elastic behavior of a polymeric layer bonded between rigid interfaces. International Journal of Solids and Structures, 2008, 45, 5152-5164.	1.3	5
129	Optimal FWMAV Wing Design for a Combination of Energy-Effective Hovering and Roll Control. International Journal of Micro Air Vehicles, 2015, 7, 41-53.	1.0	5
130	Methods to actively modify the dynamic response of cm-scale FWMAV designs. Smart Materials and Structures, 2016, 25, 055027.	1.8	5
131	A comprehensive model for transient behavior of tapping mode atomic force microscope. Nonlinear Dynamics, 2019, 97, 1601-1617.	2.7	5
132	Refined second order semi-analytical design sensitivities. International Journal for Numerical Methods in Engineering, 2002, 55, 1033-1051.	1.5	4
133	Objective Function and Adjoint Sensitivities for Moving-Mask Lithography. , 2008, , .		4
134	A novel SOI Pirani sensor with triple heat sinks. Procedia Chemistry, 2009, 1, 160-163.	0.7	4
135	On the origin of amplitude reduction mechanism in tapping mode atomic force microscopy. Applied Physics Letters, 2018, 112, .	1.5	4
136	Stiffness Compensation Through Matching Buckling Loads in a Compliant Four-Bar Mechanism. Journal of Mechanisms and Robotics, 2022, 14, .	1.5	4
137	A PDE-Based Approach to Constrain the Minimum Overhang Angle inÂTopology Optimization for Additive Manufacturing. , 2018, , 1185-1199.		4
138	3-D forming of continuous fibre reinforcements for composites. , 1999, , 241-284.		3
139	Modeling and design of shape memory alloy actuators. , 0, , .		3
140	Fracture risk and initial fixation of a cementless glenoid implant: The effect of numbers and types of screws. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 1058-1066.	1.0	3
141	Robust optimization of 2x2 multimode interference couplers with fabrication uncertainties. Proceedings of SPIE, 2013, , .	0.8	3
142	Topology optimization: An effective method for designing front metallization patterns of solar cells. , 2014, , .		3
143	Transient tip-sample interactions in high-speed AFM imaging of 3D nano structures. Proceedings of SPIE, 2015, , .	0.8	3
144	SHAPE OPTIMIZATION WITH ADAPTIVE MESH REFINEMENT: TARGET ERROR SELECTION STRATEGIES. Engineering Optimization, 1997, 28, 95-125.	1.5	2

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145	A mechanistic model for adsorption-induced change in resonance response of submicron cantilevers. , 2008, , .		2
146	Automated optimization of light dose distribution for moving-mask lithography. , 2009, , .		2
147	Gas ambient dependence of quality factor in MEMS resonators. , 2009, , .		2
148	Effect of laser deflection on resonant cantilever sensors. , 2009, , .		2
149	Size-Dependent Elastic Behavior of Silicon Nanofilms: Molecular Dynamics Study. , 2009, , .		2
150	A levelâ€setâ€based large sliding contact algorithm for easy analysis of implant positioning. International Journal for Numerical Methods in Engineering, 2012, 89, 1317-1336.	1.5	2
151	A modal-based approach for optimal active modifications of resonance modes. Journal of Sound and Vibration, 2015, 334, 151-163.	2.1	2
152	Combined mesh and penalization adaptivity based topology optimization. , 2016, , .		2
153	A critical view on the use of Nonâ€Uniform Rational Bâ€Splines to improve geometry representation in enriched finite element methods. International Journal for Numerical Methods in Engineering, 2021, 122, 1195.	1.5	2
154	Bounded-but-unknown uncertainty optimization of micro-electro-mechanical systems. , 2003, , 2291-2293.		2
155	A bound on the error in classical theory of laminated plates. International Journal of Engineering Science, 1991, 29, 869-882.	2.7	1
156	The influence of solubility effects on the pressure increase during deformation of closed thin-walled structures. Thin-Walled Structures, 1999, 35, 25-39.	2.7	1
157	Accurate design sensitivities for closed-filled structures â€“ application to plastic bottles. Structural and Multidisciplinary Optimization, 2001, 21, 239-245.	1.7	1
158	Accuracy and implementation of refined second order semiâ€analytical design sensitivities. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2001, 81, 699-700.	0.9	1
159	Special issue on approximations in optimization. Structural and Multidisciplinary Optimization, 2004, 27, 301.	1.7	1
160	Temperature Sensitivity of Silicon Cantilevers with the Pull-in Instability Method. Procedia Chemistry, 2009, 1, 1387-1390.	0.7	1
161	Surface contamination-induced resonance frequency shift of cantilevers. , 2009, , .		1
162	Quantitative analysis and decoupling of mass and stiffness effects in cantilever mass sensors. , 2010, , .		1

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163	The Sensitivity of Overall Collapse of Damaged Submarine Pressure Hulls to Material Strength. Journal of Offshore Mechanics and Arctic Engineering, 2013, 135, .	0.6	1
164	Automatic process design for 3D thick-film grayscale photolithography. , 2013, , .		1
165	Optimization methods for 3D lithography process utilizing DMD-based maskless grayscale photolithography system. Proceedings of SPIE, 2015, , .	0.8	1
166	Mesh-Independent Design of Phononic Crystals Using an Advanced Finite Element Formulation. , 2016, , .		1
167	Non-contact distance measurement and profilometry using thermal near-field radiation towards a high resolution inspection and metrology solution. Proceedings of SPIE, 2016, , .	0.8	1
168	Optimization of Capacitive Membrane Sensors for Surface-Stress-Based Measurements. IEEE Sensors Journal, 2017, 17, 3012-3021.	2.4	1
169	Efficient multi-partition topology optimization. Computer Methods in Applied Mechanics and Engineering, 2022, 393, 114829.	3.4	1
170	PADÃ‰ APPROXIMANTS APPLIED TO A NON-LINEAR FINITE ELEMENT SOLUTION STRATEGY. Communications in Numerical Methods in Engineering, 1997, 13, 229-238.	1.3	0
171	Potential of thermally expandable polymers with embedded skeletons for actuator applications. , 2008, , .		0
172	Modeling of Initially Curved Beam Structures for Design of Multistable MEMS. , 2009, , .		0
173	Robust multi-objective optimization of 2×2 multimode interference coupler using expected improvement. , 2013, , .		0
174	Conformal transformation of photonic crystal structures. Proceedings of SPIE, 2013, , .	0.8	0
175	Using Exact Particular Solutions and Modal Reduction in Topology Optimization of Transient Thermo-Mechanical Problems. , 2018, , 1027-1041.		0
176	Design of a calorimeter for near-field heat transfer measurements and thermal scanning probe microscopy. Review of Scientific Instruments, 2021, 92, 025008.	0.6	0
177	Microfabricated Thermal Gradient Separator Device. , 2009, , .		0
178	Active Control of the Hinge of a Flapping Wing with Electrostatic Sticking to Modify the Passive Pitching Motion. Computational Methods in Applied Sciences (Springer), 2017, , 153-174.	0.1	0
179	Design for drainability in density-based topology optimization. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	0