Adrian Bejan

List of Publications by Year
in descending order

687 papers	33,256 citations	7561 77 h-index	10441 139 g-index
750 all docs	750 docs citations	750 times ranked	8833 citing authors

#	Article	IF	Citations
1	Evolutionary Aeroelastic Design of Flying-Wing Cross Section. AIAA Journal, 2022, 60, 913-924.	1.5	11
2	Virus spreading and heat spreading. International Journal of Thermal Sciences, 2022, 174, 107433.	2.6	2
3	Aeroelastic Stability and Flow of Stresses in Wing Cross-Section. , 2022, , .		2
4	Evolutionary design: Heat and fluid flow together. International Communications in Heat and Mass Transfer, 2022, 132, 105924.	2.9	2
5	Evolution, physics, and education. BioSystems, 2022, 215-216, 104663.	0.9	6
6	Inflected wings in flight: Uniform flow of stresses makes strong and light wings for stable flight. Journal of Theoretical Biology, 2021, 508, 110452.	0.8	7
7	Artificial Intelligence Evolution in Smart Buildings for Energy Efficiency. Applied Sciences (Switzerland), 2021, 11, 763.	1.3	75
8	Morphing the design to go with the times. International Communications in Heat and Mass Transfer, 2021, 120, 104837.	2.9	9
9	Cell and extracellular matrix growth theory and its implications for tumorigenesis. BioSystems, 2021, 201, 104331.	0.9	6
10	Nationalism and forgetfulness in the spreading of thermal sciences. International Journal of Thermal Sciences, 2021, 163, 106802.	2.6	4
11	Evolutionary design of composite structures for thermal conductance and strength. International Communications in Heat and Mass Transfer, 2021, 125, 105293.	2.9	7
12	Heat sinks with minichannels and flow distributors based on constructal law. International Communications in Heat and Mass Transfer, 2021, 125, 105122.	2.9	12
13	Tree flows through hierarchical slits and orifices. International Communications in Heat and Mass Transfer, 2021, 128, 105589.	2.9	2
14	Purpose in Thermodynamics. Energies, 2021, 14, 408.	1.6	16
15	In Memoriam Ephraim Sparrow. International Journal of Heat and Mass Transfer, 2020, 148, 118755.	2.5	0
16	Freedom and Evolution. , 2020, , .		35
17	Boundary layers from constructal law. International Communications in Heat and Mass Transfer, 2020, 117, 104672.	2.9	6
18	Design, additive manufacturing, and performance of heat exchanger with a novel flow-path architecture. Applied Thermal Engineering, 2020, 180, 115775.	3.0	29

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19	Human evolution is biological & technological evolution. BioSystems, 2020, 195, 104156.	0.9	17
20	Freedom and evolution in the dynamics of social systems. BioSystems, 2020, 195, 104158.	0.9	11
21	Energy theory of periodic economic growth. International Journal of Energy Research, 2020, 44, 5231-5242.	2.2	7
22	University Rankings: Quality, Size and Permanence. European Review, 2020, 28, 537-558.	0.4	4
23	Convergent Evolution of Boats with Sails. Scientific Reports, 2020, 10, 2703.	1.6	5
24	AI and freedom for evolution in energy science. Energy and AI, 2020, 1, 100001.	5.8	18
25	Discipline in Thermodynamics. Energies, 2020, 13, 2487.	1.6	15
26	Hierarchy. , 2020, , 21-35.		0
27	Nature and Power. , 2020, , 1-12.		0
28	Social Organization and Innovation. , 2020, , 53-64.		0
29	Diminishing Returns. , 2020, , 123-134.		0
30	Science and Freedom. , 2020, , 135-145.		0
31	Homage to a Legendary Dynamicist on His Seventy-Fifth Birthday. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	0.8	0
32	Geometric Optimization of Cooling Techniques. , 2020, , 1-46.		1
33	Constructal Design of Aircraft: Flow of Stresses and Aeroelastic Stability. AIAA Journal, 2019, 57, 4393-4405.	1.5	10
34	Current trends in constructal law and evolutionary design. Heat Transfer - Asian Research, 2019, 48, 3574-3589.	2.8	36
35	Evolutionary design with freedom: Time dependent heat spreading. International Communications in Heat and Mass Transfer, 2019, 108, 104335.	2.9	2
36	Constructal Approach in Aeroelastic Design and Analysis of Flying Wing Aircraft. , 2019, , .		0

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37	The evolution of air and maritime transport. Applied Physics Reviews, 2019, 6, .	5.5	24
38	Why the Days Seem Shorter as We Get Older. European Review, 2019, 27, 187-194.	0.4	13
39	Professor Yogesh Jaluria on his 70th Birthday. International Journal of Heat and Mass Transfer, 2019, 140, 1106-1107.	2.5	0
40	Thermodynamics of heating. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180820.	1.0	13
41	Heat tubes: Conduction and convection. International Journal of Heat and Mass Transfer, 2019, 137, 1258-1262.	2.5	3
42	Counter cross-flow evaporator geometries for supercritical organic Rankine cycles. International Journal of Heat and Mass Transfer, 2019, 135, 425-435.	2.5	11
43	Professor Sadik KakaÃ§ on His 85th Birthday. Heat and Mass Transfer, 2019, 55, 933-935.	1.2	0
44	Novel evaporator architecture with entrance-length crossflow-paths for supercritical Organic Rankine Cycles. International Journal of Heat and Mass Transfer, 2018, 119, 208-222.	2.5	7
45	Comment on â€œStudy on the consistency between field synergy principle and entransy dissipation extremum principleâ€• International Journal of Heat and Mass Transfer, 2018, 120, 1187-1188.	2.5	17
46	The evolutionary design of cooling a plate with one stream. International Journal of Heat and Mass Transfer, 2018, 116, 9-15.	2.5	19
47	Letter to the editor on â€œTemperature-heat diagram analysis method for heat recovery physical adsorption refrigeration cycleâ€"Taking multi stage cycle as an exampleâ€•by S. Z. Xu et al., vol. 74, 2017, pp. 254â€"268. International Journal of Refrigeration, 2018, 90, 277-279.	1.8	10
48	Medical imaging dose optimisation from ground up: expert opinion of an international summit. Journal of Radiological Protection, 2018, 38, 967-989.	0.6	38
49	Evolutionary design of conducting layers with fins and freedom. International Journal of Heat and Mass Transfer, 2018, 126, 926-934.	2.5	7
50	Constructal Theory in Heat Transfer. , 2018, , 329-360.		7
51	Thermodynamics today. Energy, 2018, 160, 1208-1219.	4.5	25
52	On celebration of Professor Abdulmajeed A. Mohamadâ€™s 65th birthday. International Journal of Heat and Mass Transfer, 2018, 126, 1356-1357.	2.5	0
53	Without Engineering, Civilization does not Exist. Mechanical Engineering, 2018, 140, 42-47.	0.0	1
54	The fastest animals and vehicles are neither the biggest nor the fastest over lifetime. Scientific Reports, 2018, 8, 12925.	1.6	8

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55	Social organization: The thermodynamic basis. International Journal of Energy Research, 2018, 42, 3770-3779.	2.2	8
56	The Physics Law of Evolution. Inference, 2018, 4, .	0.0	0
57	Economies of scale: The physics basis. Journal of Applied Physics, 2017, 121, .	1.1	20
58	Internal Natural Convection: Heating from the Side. , 2017, , 363-437.		0
59	Internal Natural Convection: Heating from Below. , 2017, , 241-361.		3
60	Thermal analysis in a triple-layered skin structure with embedded vasculature, tumor, and gold nanoshells. International Journal of Heat and Mass Transfer, 2017, 111, 677-695.	2.5	21
61	Professor John W. Rose BScEng PhD DScEng(Lond) CEng FIMechE FASME on his 80th birthday. International Journal of Heat and Mass Transfer, 2017, 112, 169-170.	2.5	0
62	External Natural Convection. , 2017, , 161-239.		1
63	Geophysical Aspects. , 2017, , 595-628.		0
64	Double-Diffusive Convection. , 2017, , 473-537.		0
65	Response to â€œComment on â€˜Economies of scale: The physics basisâ€™â€•[J. Appl. Phys. 121, 206101 (2017)]. Journal of Applied Physics, 2017, 121, .	1.1	2
66	Evolution in thermodynamics. Applied Physics Reviews, 2017, 4, 011305.	5.5	87
67	Development of Specific Electronic Phenotypes for Severe Cutaneous Adverse Drug Reactions Facilitates Genetic Discovery. Journal of Allergy and Clinical Immunology, 2017, 139, AB381.	1.5	0
68	Mass Transfer in a Porous Medium: Multicomponent and Multiphase Flows. , 2017, , 57-84.		2
69	Forced Convection. , 2017, , 85-160.		1
70	Mixed Convection. , 2017, , 439-471.		0
71	Wealth inequality: The physics basis. Journal of Applied Physics, 2017, 121, .	1.1	21
72	Convection in Porous Media. , 2017, , .		351

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73	Mechanics of Fluid Flow Through a Porous Medium. , 2017, , 1-35.		7
74	Convection with Change of Phase. , 2017, , 539-593.		0
75	Evolution as Physics: The Human & Machine Species. European Review, 2017, 25, 140-149.	0.4	7
76	Horizontal extent of the urban heat dome flow. Scientific Reports, 2017, 7, 11681.	1.6	35
77	Hierarchy in air travel: Few large and many small. Journal of Applied Physics, 2017, 122, .	1.1	9
78	Entrance-length dendritic plate heat exchangers. International Journal of Heat and Mass Transfer, 2017, 114, 1350-1356.	2.5	26
79	The constructal size of a heat exchanger. Journal of Applied Physics, 2017, 122, .	1.1	21
80	Evolution and the City. Mechanical Engineering, 2017, 139, 44-49.	0.0	0
81	Constructal Theory in Heat Transfer. , 2017, , 1-32.		3
82	Accelerated Evolution. Mechanical Engineering, 2016, 138, 38-43.	0.0	0
83	Prof. Em. Dr.-Ing. Dr.-Ing. E.h. mult. Franz Mayinger on His 85th Birthday. Journal of Heat Transfer, 2016, 138, .	1.2	0
84	Flow Architectures for Ground-Coupled Heat Pumps. , 2016, , .		0
85	Novel Evaporator Geometries Based on Entrance-Length Flow-Paths for Geothermal Binary Power Plants. , 2016, , .		0
86	The evolution of helicopters. Journal of Applied Physics, 2016, 120, .	1.1	19
87	Distributed energy storage: Time-dependent tree flow design. Journal of Applied Physics, 2016, 119, .	1.1	5
88	Response to â€œComment on â€˜The physics origin of the hierarchy of bodies in spaceâ€™â€•[J. Appl. Phys. 120, 126101 (2016)]. Journal of Applied Physics, 2016, 120, 126102.	1.1	0
89	Complexity, organization, evolution, and constructal law. Journal of Applied Physics, 2016, 119, .	1.1	63
90	The physics origin of the hierarchy of bodies in space. Journal of Applied Physics, 2016, 119, .	1.1	14

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91	Constructal design for convection melting of a phase change body. International Journal of Heat and Mass Transfer, 2016, 99, 762-769.	2.5	24
92	Arrays of flow channels with heat transfer embedded in conducting walls. International Journal of Heat and Mass Transfer, 2016, 99, 504-511.	2.5	10
93	Rolling stones and turbulent eddies: why the bigger live longer and travel farther. Scientific Reports, 2016, 6, 21445.	1.6	13
94	Life and evolution as physics. Communicative and Integrative Biology, 2016, 9, e1172159.	0.6	14
95	Counterflow heat exchanger with core and plenums at both ends. International Journal of Heat and Mass Transfer, 2016, 99, 622-629.	2.5	17
96	Constructal design of salt-gradient solar pond fields. International Journal of Energy Research, 2016, 40, 1428-1446.	2.2	18
97	Professor Arcot R. Balakrishnan on his 65th birthday. International Journal of Heat and Mass Transfer, 2016, 94, 498-499.	2.5	0
98	Evolution of Airplanes, and What Price Speed?. AIAA Journal, 2016, 54, 1120-1123.	1.5	11
99	Letter to the editor of renewable and sustainable energy reviews. Renewable and Sustainable Energy Reviews, 2016, 53, 1636-1637.	8.2	9
100	Constructal thermodynamics. International Journal of Heat and Technology, 2016, 34, S1-S8.	0.3	13
101	Constructal thermodynamics. International Journal of Heat and Technology, 2016, 34, S1-S8.	0.3	9
102	Sustainability: The Water and Energy Problem, and the Natural Design Solution. European Review, 2015, 23, 481-488.	0.4	10
103	Morphing tree structures for latent thermal energy storage. Journal of Applied Physics, 2015, 117, .	1.1	35
104	Cerebral oxygenation and optimal vascular brain organization. Journal of the Royal Society Interface, 2015, 12, 20150245.	1.5	24
105	Every Snowflake is Not Unique. Mechanical Engineering, 2015, 137, 40-41.	0.0	1
106	Constructal Law: Optimization as Design Evolution. Journal of Heat Transfer, 2015, 137, .	1.2	86
107	Why humans build fires shaped the same way. Scientific Reports, 2015, 5, 11270.	1.6	10
108	Constructal design of evacuation from a three-dimensional living space. Physica A: Statistical Mechanics and Its Applications, 2015, 422, 47-57.	1.2	16

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109	Thermal coupling between a helical pipe and a conducting volume. International Journal of Heat and Mass Transfer, 2015, 83, 762-767.	2.5	4
110	The robustness of the permeability of constructal tree-shaped fissures. International Journal of Heat and Mass Transfer, 2015, 90, 259-265.	2.5	22
111	Energy design for dense neighborhoods: One heat pump rejects heat, the other absorbs heat from the same loop. International Journal of Thermal Sciences, 2015, 96, 227-235.	2.6	5
112	The evolutionary design of condensers. Journal of Applied Physics, 2015, 117, .	1.1	11
113	Constructal design of gas-cooled electric power generators, self-pumping and atmospheric circulation. International Journal of Heat and Mass Transfer, 2015, 91, 647-655.	2.5	8
114	Vascularization for cooling and reduced thermal stresses. International Journal of Heat and Mass Transfer, 2015, 80, 858-864.	2.5	19
115	Heatlines (1983) versus synergy (1998). International Journal of Heat and Mass Transfer, 2015, 81, 654-658.	2.5	42
116	Technology evolution, from the constructal law: heat transfer designs. International Journal of Energy Research, 2015, 39, 919-928.	2.2	15
117	Constructal design of latent thermal energy storage with vertical spiral heaters. International Journal of Heat and Mass Transfer, 2015, 81, 283-288.	2.5	50
118	â€œEntransy,â€•and Its Lack of Content in Physics. Journal of Heat Transfer, 2014, 136, .	1.2	56
119	Constructal Underground Designs for Ground-Coupled Heat Pumps. Journal of Solar Energy Engineering, Transactions of the ASME, 2014, 136, .	1.1	10
120	Vascular design for reducing hot spots and stresses. Journal of Applied Physics, 2014, 115, .	1.1	17
121	Comment on â€œApplication of Entransy Analysis in Self-Heat Recuperation Technologyâ€• Industrial & Engineering Chemistry Research, 2014, 53, 18352-18353.	1.8	13
122	Distribution of size in multi-evaporator air conditioning systems. International Journal of Energy Research, 2014, 38, 652-657.	2.2	6
123	Ecohydrological flow networks in the subsurface. Ecohydrology, 2014, 7, 1073-1078.	1.1	19
124	Phase change heat storage in an enclosure with vertical pipe in the center. International Journal of Heat and Mass Transfer, 2014, 72, 329-335.	2.5	52
125	Power from a hot gas stream with superheater and reheater in parallel. International Journal of Heat and Mass Transfer, 2014, 73, 29-32.	2.5	6
126	The S curve of energy storage by melting. Journal of Applied Physics, 2014, 116, .	1.1	13

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127	Constructal design of thermoelectric power packages. International Journal of Heat and Mass Transfer, 2014, 79, 291-299.	2.5	10
128	The evolution of airplanes. Journal of Applied Physics, 2014, 116, .	1.1	49
129	Assemblies of heat pumps served by a single underground heat exchanger. International Journal of Heat and Mass Transfer, 2014, 75, 327-336.	2.5	14
130	Double tree structure in a conducting body. International Journal of Heat and Mass Transfer, 2014, 77, 140-146.	2.5	4
131	Thermal coupling between a spiral pipe and a conducting volume. International Journal of Heat and Mass Transfer, 2014, 77, 202-207.	2.5	8
132	Evolution: Why all plumes and jets evolve to round cross sections. Scientific Reports, 2014, 4, 4730.	1.6	28
133	Maxwell's Demons Everywhere: Evolving Design as the Arrow of Time. Scientific Reports, 2014, 4, 4017.	1.6	32
134	Constructal distribution of multi-layer insulation. International Journal of Energy Research, 2013, 37, 153-160.	2.2	24
135	Mechanics of Fluid Flow Through a Porous Medium. , 2013, , 1-29.		12
136	Convection in Porous Media. , 2013, , .		658
137	Professor Bud Peterson on his 60th birthday. International Journal of Heat and Mass Transfer, 2013, 58, 3-5.	2.5	0
138	Trees and serpentines in a conducting body. International Journal of Heat and Mass Transfer, 2013, 56, 488-494.	2.5	20
139	Power from a hot gas stream with multiple superheaters and reheaters. International Journal of Heat and Mass Transfer, 2013, 67, 153-158.	2.5	13
140	Technology Evolution, from the Constructal Law. Advances in Heat Transfer, 2013, 45, 183-207.	0.4	7
141	Effect of size on ground-coupled heat pump performance. International Journal of Heat and Mass Transfer, 2013, 64, 115-121.	2.5	12
142	One underground heat exchanger for multiple heat pumps. International Journal of Heat and Mass Transfer, 2013, 65, 727-738.	2.5	12
143	Constructal design of regenerators. International Journal of Energy Research, 2013, 37, 1509-1518.	2.2	11
144	Entropy Generation Minimization, Exergy Analysis, and the Constructal Law. Arabian Journal for Science and Engineering, 2013, 38, 329-340.	1.1	39

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145	Constructal flow orientation in conjugate cooling channels with internal heat generation. International Journal of Heat and Mass Transfer, 2013, 57, 241-249.	2.5	23
146	Culture and the Constructal-Law evolution of the human and machine species. Physics of Life Reviews, 2013, 10, 151-153.	1.5	0
147	Constructal law: Pleasure, golden ratio, animal locomotion and the design of pedestrian evacuation. Physics of Life Reviews, 2013, 10, 199-201.	1.5	3
148	Underground heat flow patterns for dense neighborhoods with heat pumps. International Journal of Heat and Mass Transfer, 2013, 62, 632-637.	2.5	2
149	Constructal design of a comb-like channel network for self-healing and self-cooling. International Journal of Heat and Mass Transfer, 2013, 66, 898-905.	2.5	18
150	Double-Diffusive Convection. , 2013, , 425-468.		0
151	Constructal law of design and evolution: Physics, biology, technology, and society. Journal of Applied Physics, 2013, 113, .	1.1	266
152	External Natural Convection. , 2013, , 145-220.		2
153	Constructal design of pedestrian evacuation from an area. Journal of Applied Physics, 2013, 113, 034904.	1.1	11
154	Heat Transfer Through a Porous Medium. , 2013, , 31-46.		19
155	Constructal paddle design with â€œfingersâ€. Journal of Applied Physics, 2013, 113, 194902.	1.1	1
156	Why solidification has an S-shaped history. Scientific Reports, 2013, 3, .	1.6	25
157	Stepping on the Water. Mechanical Engineering, 2013, 135, 38-41.	0.0	1
158	The constructal evolution of sports with throwing motion: baseball, golf, hockey and boxing. International Journal of Design and Nature and Ecodynamics, 2013, 8, 1-16.	0.3	5
159	The evolution of long distance running and swimming. International Journal of Design and Nature and Ecodynamics, 2013, 8, 17-28.	0.3	3
160	Mixed Convection. , 2013, , 397-424.		0
161	Convection with Change of Phase. , 2013, , 469-522.		0
162	Geophysical Aspects. , 2013, , 523-553.		0

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163	Internal Natural Convection: Heating from Below. , 2013, , 221-329.		1
164	Mass Transfer in a Porous Medium: Multicomponent and Multiphase Flows. , 2013, , 47-68.		0
165	Internal Natural Convection: Heating from the Side. , 2013, , 331-396.		0
166	The Constructal Design of Humanity on the Globe. Understanding Complex Systems, 2013, , 1-20.	0.3	0
167	Vascularization for cooling a plate heated by a randomly moving source. Journal of Applied Physics, 2012, 112, 084906.	1.1	13
168	Climate change, in the framework of the Constructal Law. International Journal of Global Warming, 2012, 4, 242.	0.2	14
169	Why the bigger live longer and travel farther: animals, vehicles, rivers and the winds. Scientific Reports, 2012, 2, 594.	1.6	44
170	Constructal design of underground heat sources or sinks for the annual cycle. International Journal of Heat and Mass Transfer, 2012, 55, 7832-7837.	2.5	12
171	Serpentine thermal coupling between a stream and a conducting body. Journal of Applied Physics, 2012, 111, .	1.1	15
172	The steepest S curve of spreading and collecting flows: Discovering the invading tree, not assuming it. Journal of Applied Physics, 2012, 111, 114903.	1.1	14
173	Tree-shaped fluid flow and heat storage in a conducting solid. Journal of Applied Physics, 2012, 111, .	1.1	19
174	Constructal design for pedestrian movement in living spaces: Evacuation configurations. Journal of Applied Physics, 2012, 111, 054903.	1.1	14
175	The S-Curves are Everywhere. Mechanical Engineering, 2012, 134, 44-47.	0.0	7
176	Design in Nature. Mechanical Engineering, 2012, 134, 42-47.	0.0	45
177	X.-B. Liu, Q. Chen, M. Wang, N. Pan and Z.-Y. Guo, Multi-dimensional effect on optimal network structure for fluid distribution, Chemical Engineering and Processing 49 (2010) 1038â€"1043. Chemical Engineering and Processing: Process Intensification, 2012, 56, 34.	1.8	14
178	The physics of spreading ideas. International Journal of Heat and Mass Transfer, 2012, 55, 802-807.	2.5	43
179	Constructal design of distributed energy systems: Solar power and water desalination. International Journal of Heat and Mass Transfer, 2012, 55, 2213-2218.	2.5	14
180	Freely morphing tree structures in a conducting body. International Journal of Heat and Mass Transfer, 2012, 55, 4744-4753.	2.5	20

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181	Why we want power: Economics is physics. International Journal of Heat and Mass Transfer, 2012, 55, 4929-4935.	2.5	7
182	The constructal-law physics of why swimmers must spread their fingers and toes. Journal of Theoretical Biology, 2012, 308, 141-146.	0.8	18
183	The natural design of hierarchy: basketball versus academics. International Journal of Design and Nature and Ecodynamics, 2012, 7, 14-26.	0.3	4
184	The natural design of hierarchy: basketball versus academics. International Journal of Design and Nature and Ecodynamics, 2012, 7, 14-25.	0.3	1
185	The constructal law origin of the logistics S curve. Journal of Applied Physics, 2011, 110, .	1.1	55
186	Stressing the Science of Engineering. Mechanical Engineering, 2011, 133, 40-43.	0.0	2
187	Animals Spinning their Wheels. Mechanical Engineering, 2011, 133, 44-46.	0.0	1
188	The constructal law and the evolution of design in nature. Physics of Life Reviews, 2011, 8, 209-240.	1.5	260
189	The constructal law makes biology and economics be like physics. Physics of Life Reviews, 2011, 8, 261-263.	1.5	6
190	The effect of size on efficiency: Power plants and vascular designs. International Journal of Heat and Mass Transfer, 2011, 54, 1475-1481.	2.5	41
191	Vascularization for cooling and mechanical strength. International Journal of Heat and Mass Transfer, 2011, 54, 2774-2781.	2.5	32
192	Steam generator structure: Continuous model and constructal design. International Journal of Energy Research, 2011, 35, 336-345.	2.2	43
193	Constructal design of distributed cooling on the landscape. International Journal of Energy Research, 2011, 35, 805-812.	2.2	14
194	Professor Amir Faghri on his 60th birthday. International Journal of Heat and Mass Transfer, 2011, 54, 4459-4461.	2.5	0
195	Configuration of heat sources or sinks in a finite volume. Journal of Applied Physics, 2011, 110, 023502.	1.1	6
196	The Constructal Law and the Design of the Biosphere: Nature and Globalization. Journal of Heat Transfer, 2011, 133, .	1.2	22
197	Hybrid grid and tree structures for cooling and mechanical strength. Journal of Applied Physics, 2011, 110, .	1.1	18
198	Constructal solar chimney configuration. International Journal of Heat and Mass Transfer, 2010, 53, 327-333.	2.5	89

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199	Design in nature, thermodynamics, and the constructal law. Physics of Life Reviews, 2010, 7, 467-470.	1.5	4
200	Constructal architecture for heating a stream by convection. International Journal of Heat and Mass Transfer, 2010, 53, 2248-2255.	2.5	20
201	Constructal multi-scale pinâ€“fins. International Journal of Heat and Mass Transfer, 2010, 53, 2773-2779.	2.5	63
202	Fluid flow and heat transfer in vascularized cooling plates. International Journal of Heat and Mass Transfer, 2010, 53, 3607-3614.	2.5	28
203	The â€œflow of stressesâ€• concept: The analogy between mechanical strength and heat convection. International Journal of Heat and Mass Transfer, 2010, 53, 2963-2968.	2.5	37
204	Constructal multi-tube configuration for natural and forced convection in cross-flow. International Journal of Heat and Mass Transfer, 2010, 53, 5121-5128.	2.5	42
205	Vascular design of constructal structures with low flow resistance and nonuniformity. International Journal of Thermal Sciences, 2010, 49, 2309-2318.	2.6	29
206	Distributed energy tapestry for heating the landscape. Journal of Applied Physics, 2010, 108, .	1.1	9
207	Natural constructal emergence of vascular design with turbulent flow. Journal of Applied Physics, 2010, 107, .	1.1	30
208	Maximum Heat Transfer From Multi-Scale Fins Arranged in a Row With Non-Uniform Geometry. , 2010, , .		0
209	Vascular structures for volumetric cooling and mechanical strength. Journal of Applied Physics, 2010, 107, 044901.	1.1	13
210	Vascular Countercurrent Network for 3-D Triple-Layered Skin Structure with Radiation Heating. Numerical Heat Transfer; Part A: Applications, 2010, 57, 369-391.	1.2	17
211	Constructal dendritic configuration for the radiation heating of a solid stream. Journal of Applied Physics, 2010, 107, .	1.1	26
212	The constructal-law origin of the wheel, size, and skeleton in animal design. American Journal of Physics, 2010, 78, 692-699.	0.3	26
213	Constructal Distribution of Solar Chimney Power Plants: Few Large and Many Small. International Journal of Green Energy, 2010, 7, 577-592.	2.1	23
214	The constructal law of design and evolution in nature. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 1335-1347.	1.8	224
215	Two hierarchies in science: the free flow of ideas and the academy. International Journal of Design and Nature and Ecodynamics, 2010, 4, 386-394.	0.3	15
216	The evolution of speed in athletics: Why the fastest runners are black and swimmers white. International Journal of Design and Nature and Ecodynamics, 2010, 5, 199-211.	0.3	34

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217	Few large and many small: Hierarchy in movement on earth. International Journal of Design and Nature and Ecodynamics, 2010, 5, 254-267.	0.3	21
218	Natural Design with Constructal Theory. Mechanical Engineering, 2009, 131, 44-48.	0.0	1
219	Transient cooling response of smart vascular materials for self-cooling. Journal of Applied Physics, 2009, 105, 064904.	1.1	15
220	Leaflike architecture for cooling a flat body. Journal of Applied Physics, 2009, 106, .	1.1	20
221	The evolution of speed, size and shape in modern athletics. Journal of Experimental Biology, 2009, 212, 2419-2425.	0.8	80
222	Elemental T and Y Shapes of Tree Networks of Ducts with Various Cross-Sectional Shapes. Journal of Hydraulic Engineering, 2009, 135, 132-139.	0.7	7
223	Science and technology as evolving flow architectures. International Journal of Energy Research, 2009, 33, 112-125.	2.2	17
224	Distribution of size in steam turbine power plants. International Journal of Energy Research, 2009, 33, 989-998.	2.2	28
225	The constructal unification of biological and geophysical design. Physics of Life Reviews, 2009, 6, 85-102.	1.5	68
226	Vascular materials cooled with grids and radial channels. International Journal of Heat and Mass Transfer, 2009, 52, 1230-1239.	2.5	21
227	Vascular structures with flow uniformity and small resistance. International Journal of Heat and Mass Transfer, 2009, 52, 1761-1768.	2.5	19
228	Vascularization with line-to-line trees in counterflow heat exchange. International Journal of Heat and Mass Transfer, 2009, 52, 4327-4342.	2.5	18
229	The transient response of vascular composites cooled with grids and radial channels. International Journal of Heat and Mass Transfer, 2009, 52, 4175-4183.	2.5	14
230	Constructal Design of Vascular Porous Materials and Electrokinetic Mass Transfer. Transport in Porous Media, 2009, 77, 305-322.	1.2	7
231	The principle that generates dissimilar patterns inside aggregates of organisms. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 727-731.	1.2	24
232	Constructal steam generator architecture. International Journal of Heat and Mass Transfer, 2009, 52, 2362-2369.	2.5	33
233	Tree-shaped vascular wall designs for localized intense cooling. International Journal of Heat and Mass Transfer, 2009, 52, 4535-4544.	2.5	44
234	Constructal ducts with wrinkled entrances. International Journal of Heat and Mass Transfer, 2009, 52, 3628-3633.	2.5	19

#	Article	IF	Citations
235	Constructal tree-shaped microchannel networks for maximizing the saturated critical heat flux. International Journal of Thermal Sciences, 2009, 48, 342-352.	2.6	34
236	Transient behavior of vascularized walls exposed to sudden heating. International Journal of Thermal Sciences, 2009, 48, 2046-2052.	2.6	20
237	Vascular design for thermal management of heated structures. Aeronautical Journal, 2009, 113, 397-407.	1.1	11
238	Vascularized Smart Materials: Designed Porous Media for Self-Healing and Self-Cooling. Journal of Porous Media, 2009, 12, 1-18.	1.0	21
239	The golden ratio predicted: vision, cognition and locomotion as a single design in nature. International Journal of Design and Nature and Ecodynamics, 2009, 4, 97-104.	0.3	45
240	Global distributed energy systems. , 2009, , .		0
241	A mathematical model for skin burn injury induced by radiation heating. International Journal of Heat and Mass Transfer, 2008, 51, 5497-5510.	2.5	82
242	Unifying constructal theory of tree roots, canopies and forests. Journal of Theoretical Biology, 2008, 254, 529-540.	0.8	116
243	Vascularization with trees matched canopy to canopy: Diagonal channels with multiple sizes. International Journal of Heat and Mass Transfer, 2008, 51, 2029-2040.	2.5	36
244	Dendritic vascularization for countering intense heating from the side. International Journal of Heat and Mass Transfer, 2008, 51, 5877-5886.	2.5	23
245	The emergence of vascular design in three dimensions. Journal of Applied Physics, 2008, 103, .	1.1	35
246	Design in Nature: Tinkering and the Constructal LawA review of The Tinkerer's Accomplice: How Design Emerges from Life Itself. By J Scott Â Turner . Cambridge (Massachusetts): Harvard University Press. $27.95. ix + 282 p; ill.; index. ISBN: 0-674-02353-6. 2007.. Quarterly Review of Biology, 2008, 83, 91-94.	0.0	2
247	Constructal Theory and Design of Vascular Structures. , 2008, , .		0
248	The Constructal Law of â€œDesignednessâ€•in Nature. , 2008, , .		0
249	Discussion on â€œFrontiers of the Second Lawâ€• , 2008, , .		0
250	Discussion on â€œThe Second Law and Energyâ€• , 2008, , .		0
251	Design With Constructal Theory: Vascularized Composites for Volumetric Cooling. , 2008, , .		2
252	Constructal self-organization of research: empire building versus the individual investigator. International Journal of Design and Nature and Ecodynamics, 2008, 3, 177-189.	0.3	3

#	Article	IF	Citations
253	Why university rankings do not change: education as a natural hierarchical flow architecture. International Journal of Design and Nature, 2008, 2, 319-327.	0.0	8
254	Constructal self-organization of research: empire building versus the individual investigator. International Journal of Design and Nature and Ecodynamics, 2008, 3, 177-189.	0.3	0
255	Conditionally-Sampled Turbulent and Nonturbulent Measurements of Entropy Generation Rate in the Transition Region of Boundary Layers. Journal of Fluids Engineering, Transactions of the ASME, 2007, 129, 659-664.	0.8	5
256	Vascularized Svelte (Compact) Flow Architectures. , 2007, , 461.		0
257	Vascularization with grids of channels: multiple scales, loops and body shapes. Journal Physics D: Applied Physics, 2007, 40, 4740-4749.	1.3	25
258	Vascularization with trees that alternate with upside-down trees. Journal of Applied Physics, 2007, 101, 094904.	1.1	27
259	Constructal Theory and its Relevance to Green Energy. International Journal of Green Energy, 2007, 4, 105-117.	2.1	9
260	Constructal theory of pattern formation. Hydrology and Earth System Sciences, 2007, 11, 753-768.	1.9	50
261	Constructal tree-shaped flow structures. Applied Thermal Engineering, 2007, 27, 755-761.	3.0	64
262	Vascularized materials with heating from one side and coolant forced from the other side. International Journal of Heat and Mass Transfer, 2007, 50, 3498-3506.	2.5	31
263	Parabolic scaling of tree-shaped constructal network. Physica A: Statistical Mechanics and Its Applications, 2007, 384, 719-724.	1.2	13
264	Optimal temperature distribution in a 3D triple-layered skin structure embedded with artery and vein vasculature and induced by electromagnetic radiation. International Journal of Heat and Mass Transfer, 2007, 50, 1843-1854.	2.5	42
265	Constructal Theory of Social Dynamics. , 2007, , .		56
266	The Constructal Law in Nature and Society. , 2007, , 1-33.		6
267	Constructal Conjugate Heat Transfer in Three-Dimensional Cooling Channels. Journal of Enhanced Heat Transfer, 2007, 14, 279-293.	0.5	7
268	Vascularized materials: Tree-shaped flow architectures matched canopy to canopy. Journal of Applied Physics, 2006, 100, 063525.	1.1	78
269	Optimal Temperature Distribution in a Three-Dimensional Triple-Layered Skin Structure Embedded with Artery and Vein Vasculature. Numerical Heat Transfer; Part A: Applications, 2006, 50, 809-834.	1.2	21
270	Unifying constructal theory for scale effects in running, swimming and flying. Journal of Experimental Biology, 2006, 209, 238-248.	0.8	266

#	Article	IF	Citations
271	Optimal temperature distribution in a three dimensional triple-layered skin structure with embedded vasculature. Journal of Applied Physics, 2006, 99, 104702.	1.1	22
272	Constructal theory of generation of configuration in nature and engineering. Journal of Applied Physics, 2006, 100, 041301.	1.1	394
273	Networks of channels for self-healing composite materials. Journal of Applied Physics, 2006, 100, 033528.	1.1	73
274	Vascularized networks with two optimized channel sizes. Journal Physics D: Applied Physics, 2006, 39, 3086-3096.	1.3	55
275	Numerical Analysis of a Tree-Shaped Cooling Structure for a 2-D Slab: A Validation of a â€œConstructally Optimalâ€•Configuration. , 2006, , 413.		2
276	Constructal multi-scale structures for maximal heat transfer density. Energy, 2006, 31, 620-635.	4.5	31
277	Dendritic counterflow heat exchanger experiments. International Journal of Thermal Sciences, 2006, 45, 860-869.	2.6	29
278	Optimal distribution of cooling during gas compression. Energy, 2006, 31, 409-424.	4.5	9
279	Constructal theory of global circulation and climate. International Journal of Heat and Mass Transfer, 2006, 49, 1857-1875.	2.5	89
280	Tree-shaped flow structures with local junction losses. International Journal of Heat and Mass Transfer, 2006, 49, 2957-2964.	2.5	47
281	Constructal theory of droplet impact geometry. International Journal of Heat and Mass Transfer, 2006, 49, 2412-2419.	2.5	36
282	Thermodynamic optimization of tree-shaped flow geometries. International Journal of Heat and Mass Transfer, 2006, 49, 1619-1630.	2.5	58
283	Conduction tree networks with loops for cooling a heat generating volume. International Journal of Heat and Mass Transfer, 2006, 49, 2626-2635.	2.5	95
284	Constructal tree-shaped parallel flow heat exchangers. International Journal of Heat and Mass Transfer, 2006, 49, 4558-4566.	2.5	56
285	Thermodynamic optimization of tree-shaped flow geometries with constant channel wall temperature. International Journal of Heat and Mass Transfer, 2006, 49, 4839-4849.	2.5	42
286	Application of Constructal Theory to Prediction of Boundary Layer Transition Onset. , 2006, , 1251.		1
287	Vascularized Materials: Grids of Channels and Trees Matched Canopy to Canopy. , 2006, , 239.		0
288	Dendritic solidification morphology viewed from the perspective of constructal theory. Journal Physics D: Applied Physics, 2006, 39, 5252-5266.	1.3	13

#	Article	IF	Citations
289	Heterogeneous porous media as multiscale structures for maximum flow access. Journal of Applied Physics, 2006, 100, 114909.	1.1	74
290	Constructal theory of particle agglomeration and design of air-cleaning devices. Journal Physics D: Applied Physics, 2006, 39, 2311-2318.	1.3	43
291	Thermodynamics Fundamentals. , 2006, , 94-116.		1
292	Exergy Analysis, Entropy Generation Minimization, and Constructal Theory. , 2006, , 117-143.		4
293	Constructing Animal Locomotion from New Thermodynamics Theory. American Scientist, 2006, 94, 342.	0.1	51
294	HETEROGENEOUS POROUS MEDIA AS MULTISCALE STRUCTURES FOR MAXIMUM FLOW ACCESS. , 2006, , .		1
295	Constructal theory of design in engineering and nature. Thermal Science, 2006, 10, 9-18.	0.5	6
296	OPTIMAL GEOMETRY FOR CONJUGATE HEAT TRANSFER IN A COOLING CHANNEL. , 2006, , .		0
297	OPTIMIZATION OF ELEMENTAL FLOW PASSAGES OF FLUID FLOW NETWORKS. , 2006, , .		1
298	Constructing a Theory for Scaling and More. Physics Today, 2005, 58, 20-20.	0.3	8
299	Constructal Design: The Generation of Multi-Scale Heat and Fluid Flow Structures. Journal of Heat Transfer, 2005, 127, 799-799.	1.2	1
300	Constructal theory of energy-system and environment flow configurations. International Journal of Exergy, 2005, 2, 335.	0.2	13
301	Constructal multi-scale structure for maximal heat transfer density in natural convection. International Journal of Heat and Fluid Flow, 2005, 26, 34-44.	1.1	68
302	Tree-shaped networks with loops. International Journal of Heat and Mass Transfer, 2005, 48, 573-583.	2.5	56
303	Constructal multi-scale cylinders in cross-flow. International Journal of Heat and Mass Transfer, 2005, 48, 1373-1383.	2.5	58
304	Distribution of heat sources in vertical open channels with natural convection. International Journal of Heat and Mass Transfer, 2005, 48, 1462-1469.	2.5	64
305	Constructal multi-scale structures with asymmetric heat sources of finite thickness. International Journal of Heat and Mass Transfer, 2005, 48, 2662-2672.	2.5	28
306	Constructal PEM fuel cell stack design. International Journal of Heat and Mass Transfer, 2005, 48, 4410-4427.	2.5	52

#	Article	IF	Citations
307	Tree-shaped structures for cold storage. International Journal of Refrigeration, 2005, 28, 231-241.	1.8	13
308	Tree networks for minimal pumping power. International Journal of Thermal Sciences, 2005, 44, 53-63.	2.6	49
309	Thermodynamic optimization of global circulation and climate. International Journal of Energy Research, 2005, 29, 303-316.	2.2	27
310	Thermodynamic optimization and constructal design. International Journal of Energy Research, 2005, 29, 557-557.	2.2	0
311	Constructal multi-scale and multi-objective structures. International Journal of Energy Research, 2005, 29, 689-710.	2.2	40
312	Constructal multi-scale cylinders with natural convection. International Journal of Heat and Mass Transfer, 2005, 48, 4300-4306.	2.5	53
313	Svelteness, freedom to morph, and constructal multi-scale flow structures. International Journal of Thermal Sciences, 2005, 44, 1123-1130.	2.6	86
314	Tree-Shaped Flow Architectures: Strategies for Increasing Optimization Speed and Accuracy. Numerical Heat Transfer; Part A: Applications, 2005, 48, 731-744.	1.2	29
315	Optimal Ground Tube Length for Cooling of Electronics Shelters. Heat Transfer Engineering, 2005, 26, 8-20.	1.2	9
316	The constructal law of organization in nature: tree-shaped flows and body size. Journal of Experimental Biology, 2005, 208, 1677-1686.	0.8	99
317	Emergence of asymmetry in constructal tree flow networks. Journal of Applied Physics, 2005, 98, 104903.	1.1	26
318	A Constructal Approach to the Optimal Design of Photovoltaic Cells. International Journal of Green Energy, 2005, 2, 233-242.	2.1	28
319	The Optimal Shape for a Unit PEM Fuel Cell. , 2005, , .		1
320	CONSTRUCTAL DESIGN AND THERMODYNAMIC OPTIMIZATION. Annual Review of Heat Transfer, 2005, 14, 511-527.	0.3	13
321	Sveltness, Freedom to Morph, and the Constructal Design of Multi-Scale Flow Structures. , 2005, , .		1
322	Constructal heat trees at micro and nanoscales. Journal of Applied Physics, 2004, 96, 5852-5859.	1.1	53
323	Optimal Spacings for Mixed Convection. Journal of Heat Transfer, 2004, 126, 956-962.	1.2	20
324	MAXIMAL HEAT TRANSFER DENSITY IN VERTICAL MORPHING CHANNELS WITH NATURAL CONVECTION. Numerical Heat Transfer; Part A: Applications, 2004, 45, 135-152.	1.2	50

#	Article	IF	Citations
325	MAXIMUM HEAT TRANSFER RATE DENSITY IN TWO-DIMENSIONAL MINICHANNELS AND MICROCHANNELS. Microscale Thermophysical Engineering, 2004, 8, 225-237.	1.2	19
326	Optimal distribution of discrete heat sources on a wall with natural convection. International Journal of Heat and Mass Transfer, 2004, 47, 203-214.	2.5	153
327	Inverted fins: geometric optimization of the intrusion into a conducting wall. International Journal of Heat and Mass Transfer, 2004, 47, 2577-2586.	2.5	88
328	Constructal flow structure for a PEM fuel cell. International Journal of Heat and Mass Transfer, 2004, 47, 4177-4193.	2.5	64
329	Constructal thermal optimization of an electromagnet. International Journal of Thermal Sciences, 2004, 43, 331-338.	2.6	25
330	Thermodynamic optimization of internal structure in a fuel cell. International Journal of Energy Research, 2004, 28, 319-339.	2.2	47
331	Optimally staggered finned circular and elliptic tubes in forced convection. International Journal of Heat and Mass Transfer, 2004, 47, 1347-1359.	2.5	79
332	Optimal distribution of discrete heat sources on a plate with laminar forced convection. International Journal of Heat and Mass Transfer, 2004, 47, 2139-2148.	2.5	96
333	Combined `heat flow and strength' optimization of geometry: mechanical structures most resistant to thermal attack. International Journal of Heat and Mass Transfer, 2004, 47, 3477-3489.	2.5	20
334	The constructal law and the thermodynamics of flow systems with configuration. International Journal of Heat and Mass Transfer, 2004, 47, 3203-3214.	2.5	215
335	Designed porous media: maximal heat transfer density at decreasing length scales. International Journal of Heat and Mass Transfer, 2004, 47, 3073-3083.	2.5	60
336	Disc cooled with high-conductivity inserts that extend inward from the perimeter. International Journal of Heat and Mass Transfer, 2004, 47, 4257-4263.	2.5	49
337	Dendritic fins optimization for a coaxial two-stream heat exchanger. International Journal of Heat and Mass Transfer, 2004, 47, 111-124.	2.5	36
338	Three-dimensional optimization of staggered finned circular and elliptic tubes in forced convection. International Journal of Thermal Sciences, 2004, 43, 477-487.	2.6	106
339	Maximal heat transfer density: Plates with multiple lengths in forced convection. International Journal of Thermal Sciences, 2004, 43, 1181-1186.	2.6	41
340	Constructal multi-scale tree-shaped heat exchangers. Journal of Applied Physics, 2004, 96, 1709-1718.	1.1	94
341	Tree-shaped flow structures: are both thermal-resistance and flow-resistance minimisations necessary?. International Journal of Exergy, 2004, 1, 2.	0.2	23
342	Multiple Length Scales for Maximal Heat Transfer Density in Forced and Natural Convection. , 2004, , 133.		1

#	Article	IF	Citations
343	Porous and Complex Flow Structures in Modern Technologies. , 2004, , .		255
344	Designed Porous Media. , 2004, , 337-349.		4
345	A Course on Flow-System Configuration and Multi-Scale Design. , 2004, , .		2
346	Fuel Cells Constructal Optimization and Research Perspectives. , 2004, , .		0
347	Fundamentals of Scale Analysis, Heatline Visualization, and the Intersection of Asymptotes. , 2004, , 13-24.		0
348	Constructal tree shaped networks for the distribution of electrical power. Energy Conversion and Management, 2003, 44, 867-891.	4.4	27
349	Integral measures of electric power distribution networks: loadâ€"length curves and line-network multipliers. Energy Conversion and Management, 2003, 44, 1039-1051.	4.4	11
350	Constructal tree-shaped paths for conduction and convection. International Journal of Energy Research, 2003, 27, 283-299.	2.2	25
351	Optimization of tree-shaped flow distribution structures over a disc-shaped area. International Journal of Energy Research, 2003, 27, 715-723.	2.2	35
352	Flows in environmental fluids and porous media. International Journal of Energy Research, 2003, 27, 825-846.	2.2	6
353	Special issue on heat and mass transfer in porous media. International Journal of Energy Research, 2003, 27, 857-857.	2.2	0
354	Simple methods for convection in porous media: scale analysis and the intersection of asymptotes. International Journal of Energy Research, 2003, 27, 859-874.	2.2	19
355	Constructal comment on a Fermat-type principle for heat flow. International Journal of Heat and Mass Transfer, 2003, 46, 1885-1886.	2.5	9
356	Constructal tree-shaped two-phase flow for cooling a surface. International Journal of Heat and Mass Transfer, 2003, 46, 2785-2797.	2.5	30
357	Minimum power requirement for environmental control of aircraft. Energy, 2003, 28, 1183-1202.	4.5	42
358	Fitting the duct to the â€œbodyâ€•of the convective flow. International Journal of Heat and Mass Transfer, 2003, 46, 1693-1701.	2.5	28
359	Dendritic heat convection on a disc. International Journal of Heat and Mass Transfer, 2003, 46, 4381-4391.	2.5	77
360	System-level optimization of the sizes of organs for heat and fluid flow systems. International Journal of Thermal Sciences, 2003, 42, 335-342.	2.6	9

#	Article	IF	Citations
361	Designed porous media: Optimally nonuniform flow structures connecting one point with more points. International Journal of Thermal Sciences, 2003, 42, 857-870.	2.6	42
362	Constructal geometry and operation of adsorption processes. International Journal of Thermal Sciences, 2003, 42, 983-994.	2.6	12
363	Constructal multi-scale structure for maximal heat transfer density. Acta Mechanica, 2003, 163, 39-49.	1.1	56
364	Constructal Theory: Tree-Shaped Flows and Energy Systems for Aircraft. Journal of Aircraft, 2003, 40, 43-48.	1.7	33
365	Optimal Internal Structure of Volumes Cooled by Single-Phase Forced and Natural Convection. Journal of Electronic Packaging, Transactions of the ASME, 2003, 125, 200-207.	1.2	27
366	Maximum Heat Transfer Rate Density in Two-Dimensional Minichannels and Microchannels. , 2003, , 765.		2
367	Thermodynamic Formulation of the Constructal Law. , 2003, , 163.		4
368	Constructal Optimization of Tree-Shaped Paths for the Collection and Distribution of Fluid, Electricity, Goods and People. , 2002, , 117-134.		0
369	Methane Hydrates in Porous Layers: Gas Formation and Convection. , 2002, , 365-396.		4
370	Thermodynamic Optimization of Flow Architecture: Dendritic Structures and Optimal Sizes of Components. , 2002, , 83.		4
371	Fundamentals of exergy analysis, entropy generation minimization, and the generation of flow architecture. International Journal of Energy Research, 2002, 26, 0-43.	2.2	374
372	Dendritic constructal heat exchanger with small-scale crossflows and larger-scales counterflows. International Journal of Heat and Mass Transfer, 2002, 45, 4607-4620.	2.5	84
373	Fundamentals of tree-shaped networks of insulated pipes for hot water and exergy. Exergy an International Journal, 2002, 2, 227-236.	0.7	10
374	Development of tree-shaped flows by adding new users to existing networks of hot water pipes. International Journal of Heat and Mass Transfer, 2002, 45, 723-733.	2.5	41
375	Constructal design for cooling a disc-shaped area by conduction. International Journal of Heat and Mass Transfer, 2002, 45, 1643-1652.	2.5	153
376	Tree-shaped flow structures designed by minimizing path lengths. International Journal of Heat and Mass Transfer, 2002, 45, 3299-3312.	2.5	136
377	Combined `flow and strength' geometric optimization: internal structure in a vertical insulating wall with air cavities and prescribed strength. International Journal of Heat and Mass Transfer, 2002, 45, 3313-3320.	2.5	49
378	Optimal tree-shaped networks for fluid flow in a disc-shaped body. International Journal of Heat and Mass Transfer, 2002, 45, 4911-4924.	2.5	170

#	Article	IF	Citations
379	The Optimal Shape of the Interface Between Two Conductive Bodies With Minimal Thermal Resistance. Journal of Heat Transfer, 2002, 124, 1218-1221.	1.2	11
380	CONSTRUCTAL THEORY: FROM ENGINEERING DESIGN TO PREDICTING SHAPE AND STRUCTURE IN NATURE. Revista De Engenharia TÃ©rmica, 2002, 1, .	0.0	1
381	Thermodynamic Optimization of Flow Geometry in Mechanical and Civil Engineering. Journal of Non-Equilibrium Thermodynamics, 2001, 26, .	2.4	73
382	CONSTRUCTAL THEORY: FROM ENGINEERING DESIGN TO PREDICTING SHAPE AND STRUCTURE IN NATURE. Revista De Engenharia TÃ©rmica, 2001, 1, 27.	0.0	0
383	Thermodynamic optimization of geometric structure in the counterflow heat exchanger for an environmental control system. Energy, 2001, 26, 493-512.	4.5	41
384	Thermodynamic optimization of finned crossflow heat exchangers for aircraft environmental control systems. International Journal of Heat and Fluid Flow, 2001, 22, 657-665.	1.1	89
385	The need for exergy analysis and thermodynamic optimization in aircraft development. Exergy an International Journal, 2001, 1, 14-24.	0.7	89
386	Thermodynamic optimization of geometry in engineering flow systems. Exergy an International Journal, 2001, 1, 269-277.	0.7	53
387	The extraction of power from a hot stream. International Journal of Energy Research, 2001, 25, 507-518.	2.2	1
388	Thermodynamic optimization of heat-transfer equipment configuration in an environmental control system. International Journal of Energy Research, 2001, 25, 1127-1150.	2.2	9
389	Tree-shaped insulated designs for the uniform distribution of hot water over an area. International Journal of Heat and Mass Transfer, 2001, 44, 3111-3123.	2.5	74
390	The tree of convective heat streams: its thermal insulation function and the predicted 3/4-power relation between body heat loss and body size. International Journal of Heat and Mass Transfer, 2001, 44, 699-704.	2.5	98
391	Integrative thermodynamic optimization of the environmental control system of an aircraft. International Journal of Heat and Mass Transfer, 2001, 44, 3907-3917.	2.5	45
392	Constructal optimization of nonuniformly distributed tree-shaped flow structures for conduction. International Journal of Heat and Mass Transfer, 2001, 44, 4185-4194.	2.5	81
393	Geometric Optimization of Periodic Flow and Heat Transfer in a Volume Cooled by Parallel Tubes. Journal of Heat Transfer, 2001, 123, 233-239.	1.2	27
394	Integrative Thermodynamic Optimization of the Crossflow Heat Exchanger for an Aircraft Environmental Control System. Journal of Heat Transfer, 2001, 123, 760-769.	1.2	34
395	Constructal Placement of High-Conductivity Inserts in a Slab: Optimal Design of â€œRoughnessâ€. Journal of Heat Transfer, 2001, 123, 1184-1189.	1.2	20
396	Convection with Phase Change During Gas Formation from Methane Hydrates via Depressurization of Porous Layers. Journal of Porous Media, 2001, 4, 14.	1.0	3

#	Article	IF	Citations
397	Architecture from exergy-based global optimization - Tree-shaped flows and energy systems for aircraft. , 2000, , .		2
398	Entropy generation minimization in parallel-plates counterflow heat exchangers. International Journal of Energy Research, 2000, 24, 843-864.	2.2	74
399	Cylindrical trees of pin fins. International Journal of Heat and Mass Transfer, 2000, 43, 4285-4297.	2.5	59
400	Power extraction from a hot stream in the presence of phase change. International Journal of Heat and Mass Transfer, 2000, 43, 191-201.	2.5	23
401	Constructal T-shaped fins. International Journal of Heat and Mass Transfer, 2000, 43, 2101-2115.	2.5	167
402	Convective trees of fluid channels for volumetric cooling. International Journal of Heat and Mass Transfer, 2000, 43, 3105-3118.	2.5	134
403	Thermodynamic optimization of geometry: T- and Y-shaped constructs of fluid streams. International Journal of Thermal Sciences, 2000, 39, 949-960.	2.6	176
404	Constructal theory of economics. Applied Energy, 2000, 67, 37-60.	5.1	36
405	Thermodynamic optimization of the match between two streams with phase change. Energy, 2000, 25, 15-33.	4.5	30
406	Constructal theory of economics structure generation in space and time. Energy Conversion and Management, 2000, 41, 1429-1451.	4.4	39
407	Constructal theory of economics. , 2000, , 37-60.		1
408	From Heat Transfer Principles to Shape and Structure in Nature: Constructal Theory. Journal of Heat Transfer, 2000, 122, 430-449.	1.2	67
409	ENTROPY GENERATION MINIMIZATION: THE METHOD AND ITS APPLICATIONS. , 2000, , .		3
410	Two Constructal Routes to Minimal Heat Flow Resistance via Greater Internal Complexity. Journal of Heat Transfer, 1999, 121, 6-14.	1.2	36
411	Constructal Trees of Convective Fins. Journal of Heat Transfer, 1999, 121, 675-682.	1.2	40
412	Three-dimensional tree constructs of â€œconstantâ€•thermal resistance. Journal of Applied Physics, 1999, 86, 7107-7115.	1.1	42
413	Optimisation of film condensation with periodic wall cleaning. International Journal of Thermal Sciences, 1999, 38, 113-120.	2.6	4
414	How nature takes shape: extensions of constructural theory to ducts, rivers, turbulence, cracks, dendritic crystals and spatial economics. International Journal of Thermal Sciences, 1999, 38, 653-663.	2.6	34

#	Article	IF	Citations
415	The First NATO Advanced Study Institute on Thermodynamic Optimization (Neptun, Romania, 1998). Energy, 1999, 24, 753-759.	4.5	4
416	Vortex tube optimization theory. Energy, 1999, 24, 931-943.	4.5	65
417	Constructal trees of circular fins for conductive and convective heat transfer. International Journal of Heat and Mass Transfer, 1999, 42, 3585-3597.	2.5	73
418	Conduction trees with spacings at the tips. International Journal of Heat and Mass Transfer, 1999, 42, 3739-3756.	2.5	74
419	Thermodynamic optimization alternatives: minimization of physical size subject to fixed power. International Journal of Energy Research, 1999, 23, 1111-1121.	2.2	23
420	The Method of Entropy Generation Minimization. Environmental Science and Technology Library, 1999, , 11-22.	0.1	21
421	Constructal-theory tree networks of â€œconstantâ€• thermal resistance. Journal of Applied Physics, 1999, 86, 1136-1144.	1.1	89
422	Convection in Porous Media. , 1999, , .		1,171
423	Forced Convection. , 1999, , 51-104.		1
424	Internal Natural Convection: Heating from Below. , 1999, , 175-260.		6
425	Mixed Convection. , 1999, , 321-343.		1
426	Double-Diffusive Convection. , 1999, , 345-378.		3
427	How nature takes shape: extensions of constructal theory to ducts, rivers, turbulence, cracks, dendritic crystals and spatial economics. International Journal of Thermal Sciences, 1999, 38, 653-663.	0.2	3
428	Tree Networks for Flows in Composite Porous Media. Journal of Porous Media, 1999, 2, 1-17.	1.0	26
429	Internal Natural Convection: Heating from the Side. , 1999, , 261-319.		0
430	Convection with Change of Phase. , 1999, , 379-430.		0
431	Constructal Flow Geometry Optimization. , 1999, , 61-72.		0
432	Geophysical Aspects. , 1999, , 431-451.		0

#	Article	IF	Citations
433	Thermodynamic Optimization of Inanimate and Animate Flow Systems. , 1999, , 45-60.		0
434	A Role for Exergy Analysis and Optimization in Aircraft Energy-System Design. , 1999, , .		3
435	Maximum power from a hot stream. International Journal of Heat and Mass Transfer, 1998, 41, 2025-2035.	2.5	44
436	Constructal theory of natural crack pattern formation for fastest cooling. International Journal of Heat and Mass Transfer, 1998, 41, 1945-1954.	2.5	26
437	Constructal theory: from thermodynamic and geometric optimization to predicting shape in nature. Energy Conversion and Management, 1998, 39, 1705-1718.	4.4	62
438	Equipartition, optimal allocation, and the constructal approach to predicting organization in nature. International Journal of Thermal Sciences, 1998, 37, 165-180.	0.2	66
439	Streets tree networks and urban growth: Optimal geometry for quickest access between a finite-size volume and one point. Physica A: Statistical Mechanics and Its Applications, 1998, 255, 211-217.	1.2	70
440	Exergy analysis of energy conversion during the thermal interaction between hot particles and water. Energy, 1998, 23, 913-928.	4.5	13
441	EVOLUTION OF A MIXTURE OF HOT PARTICLES. STEAM, AND WATER IMMERSED IN A WATER POOL. Numerical Heat Transfer; Part A: Applications, 1998, 34, 463-478.	1.2	1
442	Constructal tree networks for the time-dependent discharge of a finite-size volume to one point. Journal of Applied Physics, 1998, 84, 3042-3050.	1.1	44
443	Thermodynamic Optimization of a Gas Turbine Power Plant With Pressure Drop Irreversibilities. Journal of Energy Resources Technology, Transactions of the ASME, 1998, 120, 233-240.	1.4	68
444	Deterministic Tree Networks for River Drainage Basins. Fractals, 1998, 06, 245-261.	1.8	70
445	Constructal Optimization of Internal Flow Geometry in Convection. Journal of Heat Transfer, 1998, 120, 357-364.	1.2	43
446	Constructal Three-Dimensional Trees for Conduction Between a Volume and One Point. Journal of Heat Transfer, 1998, 120, 977-984.	1.2	29
447	On the Thermodynamic Optimization of Power Plants With Heat Transfer and Fluid Flow Irreversibilities. Journal of Solar Energy Engineering, Transactions of the ASME, 1998, 120, 139-144.	1.1	20
448	Questions in Fluid Mechanics: Natural Tree-Shaped Flows. Journal of Fluids Engineering, Transactions of the ASME, 1998, 120, 429-430.	0.8	4
449	Optimal Geometric Arrangement of Staggered Vertical Plates in Natural Convection. Journal of Heat Transfer, 1997, 119, 700-708.	1.2	41
450	Deterministic Tree Networks for Fluid Flow: Geometry for Minimal Flow Resistance Between a Volume and One Point. Fractals, 1997, 05, 685-695.	1.8	157

#	Article	IF	Citations
451	Fundamental Optima in Thermal Science. International Journal of Mechanical Engineering Education, 1997, 25, 33-47.	0.6	5
452	Constructal tree networks for heat transfer. Journal of Applied Physics, 1997, 82, 89-100.	1.1	182
453	Thermodynamic optimization of heat transfer and fluid flow processes. , 1997, , 173-202.		1
454	Optimization of Pulsating Heating in Pool Boiling. Journal of Heat Transfer, 1997, 119, 298-304.	1.2	2
455	Constructal-theory network of conducting paths for cooling a heat generating volume. International Journal of Heat and Mass Transfer, 1997, 40, 799-816.	2.5	759
456	Maximum work from an electric battery model. Energy, 1997, 22, 93-102.	4.5	18
457	On the thermodynamic efficiency of energy conversion during the expansion of a mixture of hot particles, steam and liquid water. Energy, 1997, 22, 1119-1133.	4.5	6
458	Constructal tree network for fluid flow between a finite-size volume and one source or sink. International Journal of Thermal Sciences, 1997, 36, 592-604.	0.2	80
459	Optimal geometric arrangement of staggered plates in forced convection. International Journal of Heat and Mass Transfer, 1997, 40, 1795-1805.	2.5	35
460	Theory of organization in nature: pulsating physiological processes. International Journal of Heat and Mass Transfer, 1997, 40, 2097-2104.	2.5	51
461	Professor W. J. Minkowycz on his 60th birthday and his 30th year as editor of the International Journal of Heat and Mass Transfer. International Journal of Heat and Mass Transfer, 1997, 40, 3997-3998.	2.5	0
462	Models of power plants that generate minimum entropy while operating at maximum power. American Journal of Physics, 1996, 64, 1054-1059.	0.3	94
463	Entropy generation minimization: The new thermodynamics of finiteâ€size devices and finiteâ€time processes. Journal of Applied Physics, 1996, 79, 1191-1218.	1.1	1,565
464	Heat sinks with sloped plate fins in natural and forced convection. International Journal of Heat and Mass Transfer, 1996, 39, 1773-1783.	2.5	68
465	A model for heat transfer in a honey bee swarm. Chemical Engineering Science, 1996, 51, 387-400.	1.9	13
466	The optimal spacing of cylinders in free-stream cross-flow forced convection. International Journal of Heat and Mass Transfer, 1996, 39, 311-317.	2.5	99
467	Thermodynamic optimization of cooling techniques for electronic packages. International Journal of Heat and Mass Transfer, 1996, 39, 1213-1221.	2.5	39
468	Maximum power from fluid flow. International Journal of Heat and Mass Transfer, 1996, 39, 1175-1181.	2.5	40

#	Article	IF	Citations
469	Analogy between electrical machines and heat transfer-irreversible heat engines. International Journal of Heat and Mass Transfer, 1996, 39, 3659-3666.	2.5	14
470	Street network theory of organization in nature. Journal of Advanced Transportation, 1996, 30, 85-107.	0.9	208
471	Cooling of a two-dimensional space with one or more streams making one or more passes. International Journal of Heat and Fluid Flow, 1996, 17, 78-88.	1.1	3
472	Method of entropy generation minimization, or modeling and optimization based on combined heat transfer and thermodynamics. International Journal of Thermal Sciences, 1996, 35, 637-646.	0.2	154
473	TIME-DEPENDENT INTERACTION BETWEEN WATER AT SUPERCRITICAL PRESSURES AND A HOT SURFACE. Numerical Heat Transfer; Part A: Applications, 1996, 30, 535-553.	1.2	3
474	Optimal Spacing Between Pin Fins With Impinging Flow. Journal of Heat Transfer, 1996, 118, 570-577.	1.2	71
475	Thermodynamic Optimization of Solar-Driven Refrigerators. Journal of Solar Energy Engineering, Transactions of the ASME, 1996, 118, 130-135.	1.1	38
476	The Equivalence of Maximum Power and Minimum Entropy Generation Rate in the Optimization of Power Plants. Journal of Energy Resources Technology, Transactions of the ASME, 1996, 118, 98-101.	1.4	26
477	Optimization Principle for Natural Convection Pulsating Heating. Journal of Heat Transfer, 1995, 117, 942-947.	1.2	8
478	Free stream cooling of a stack of parallel plates. International Journal of Heat and Mass Transfer, 1995, 38, 519-531.	2.5	44
479	Theory of heat transfer-irreversible power plantsâ€"II. The optimal allocation of heat exchange equipment. International Journal of Heat and Mass Transfer, 1995, 38, 433-444.	2.5	97
480	Forced convection from a surface covered with flexible fibers. International Journal of Heat and Mass Transfer, 1995, 38, 767-777.	2.5	11
481	The optimal spacing between horizontal cylinders in a fixed volume cooled by natural convection. International Journal of Heat and Mass Transfer, 1995, 38, 2047-2055.	2.5	85
482	Fundamentals of ice making by convection cooling followed by contact melting. International Journal of Heat and Mass Transfer, 1995, 38, 2833-2841.	2.5	10
483	Optimization of pulsating heaters in forced convection. International Journal of Heat and Mass Transfer, 1995, 38, 2925-2934.	2.5	9
484	Optimal allocation of a heat-exchanger inventory in heat driven refrigerators. International Journal of Heat and Mass Transfer, 1995, 38, 2997-3004.	2.5	124
485	Two design aspects of defrosting refrigerators. International Journal of Refrigeration, 1995, 18, 76-86.	1.8	35
486	Cooling of stacks of plates shielded by porous screens. International Journal of Heat and Fluid Flow, 1995, 16, 16-24.	1.1	15

#	Article	IF	Citations
487	Nonsimilar solutions for mixed convection on a wedge embedded in a porous medium. International Journal of Heat and Fluid Flow, 1995, 16, 211-216.	1.1	25
488	The Optimal Spacing for Cylinders in Crossflow Forced Convection. Journal of Heat Transfer, 1995, 117, 767-770.	1.2	45
489	Superconducting Alternator Test Results. , 1995, , 53-58.		0
490	Discussion: â€œNatural Convection From L-Shaped Corners With Adiabatic and Cold Isothermal Horizontal Wallsâ€•(Angirasa, D., and Mahajan, R. L., 1993, ASME J. Heat Transfer, 115, pp. 149â€"157). Journal of Heat Transfer, 1994, 116, 519-520.	1.2	3
491	The Melting of an Ice Shell on a Heated Horizontal Cylinder. Journal of Heat Transfer, 1994, 116, 702-708.	1.2	24
492	Two Fundamental Problems of Refrigerator Thermal Insulation Design. Heat Transfer Engineering, 1994, 15, 35-41.	1.2	13
493	Correlation of optimal sizes of bodies with external forced convection heat transfer. International Communications in Heat and Mass Transfer, 1994, 21, 17-27.	2.9	23
494	Plate fins with variable thickness and height for air-cooled electronic modules. International Journal of Heat and Mass Transfer, 1994, 37, 433-445.	2.5	30
495	When to defrost a refrigerator, and when to remove the scale from the heat exchanger of a power plant. International Journal of Heat and Mass Transfer, 1994, 37, 523-532.	2.5	23
496	The optimal spacing of a stack of plates cooled by turbulent forced convection. International Journal of Heat and Mass Transfer, 1994, 37, 1045-1048.	2.5	27
497	Heatline visualization of forced convection in porous media. International Journal of Heat and Fluid Flow, 1994, 15, 42-47.	1.1	44
498	Forced convection in banks of inclined cylinders at low Reynolds numbers. International Journal of Heat and Fluid Flow, 1994, 15, 90-99.	1.1	41
499	OPTIMAL SPACING OF PARALLEL BOARDS WITH DISCRETE HEAT SOURCES COOLED BY LAMINAR FORCED CONVECTION. Numerical Heat Transfer; Part A: Applications, 1994, 25, 373-392.	1.2	25
500	Contact Melting Heat Transfer and Lubrication. Advances in Heat Transfer, 1994, 24, 1-38.	0.4	44
501	Engineering advances on finiteâ€time thermodynamics. American Journal of Physics, 1994, 62, 11-12.	0.3	26
502	Heat Transfer as a Design-Oriented Course: Mechanical Supports as Thermal Insulators. International Journal of Mechanical Engineering Education, 1994, 22, 29-41.	0.6	0
503	Comments on â€œAnalysis of close-contact melting for octadecane and ice inside isothermally heated horizontal rectangular capsuleâ€• International Journal of Heat and Mass Transfer, 1993, 36, 832.	2.5	0
504	The optimal cooling of a stack of heat generating boards with fixed pressure drop, flowrate or pumping power. International Journal of Heat and Mass Transfer, 1993, 36, 3677-3686.	2.5	51

#	Article	IF	Citations
505	Heatline visualization of forced convection laminar boundary layers. International Journal of Heat and Mass Transfer, 1993, 36, 3957-3966.	2.5	78
506	Contact melting during sliding on ice. International Journal of Heat and Mass Transfer, 1993, 36, 1171-1179.	2.5	31
507	The resonance of natural convection in an enclosure heated periodically from the side. International Journal of Heat and Mass Transfer, 1993, 36, 2027-2038.	2.5	174
508	Melting around a shaft rotating in a phase-change material. International Journal of Heat and Mass Transfer, 1993, 36, 2499-2509.	2.5	8
509	How to distribute a finite amount of insulation on a wall with nonuniform temperature. International Journal of Heat and Mass Transfer, 1993, 36, 49-56.	2.5	30
510	The cooling of a heat-generating board inside a parallel-plate channel. International Journal of Heat and Fluid Flow, 1993, 14, 170-176.	1.1	8
511	Optimal Arrays of Pin Fins and Plate Fins in Laminar Forced Convection. Journal of Heat Transfer, 1993, 115, 75-81.	1.2	105
512	Power and Refrigeration Plants for Minimum Heat Exchanger Inventory. Journal of Energy Resources Technology, Transactions of the ASME, 1993, 115, 148-150.	1.4	90
513	Spaces Filled With Fluid and Fibers Coated With a Phase-Change Material. Journal of Heat Transfer, 1993, 115, 1044-1050.	1.2	14
514	Thermal Contact Resistance Between Two Flat Surfaces That Squeeze a Film of Lubricant. Journal of Heat Transfer, 1993, 115, 763-767.	1.2	2
515	Closure to â€œDiscussion of â€˜Natural Convection With Radiation in a Cavity With Open Top Endâ€™â€•(1993,) Tj ETQq1 1 0.7843	1.2	0
516	Natural Convection With Radiation in a Cavity With Open Top End. Journal of Heat Transfer, 1992, 114, 479-486.	1.2	53
517	Thermodynamic Optimization of Phase-Change Energy Storage Using Two or More Materials. Journal of Energy Resources Technology, Transactions of the ASME, 1992, 114, 84-90.	1.4	57
518	Comment on "Natural Convection from Isothermal Plates Embedded in Thermally Stratified Porous Media". Journal of Thermophysics and Heat Transfer, 1992, 6, 574-575.	0.9	0
519	The Pressure Melting of Ice Due to an Embedded Cylinder. Journal of Heat Transfer, 1992, 114, 532-535.	1.2	13
520	The Pressure Melting of Ice Under a Body With Flat Base. Journal of Heat Transfer, 1992, 114, 529-531.	1.2	20
521	The Prandtl Number Effect on Melting Dominated by Natural Convection. Journal of Heat Transfer, 1992, 114, 784-787.	1.2	14
522	The Prandtl number effect near the onset of BÃ©nard convection in a porous medium. International Journal of Heat and Fluid Flow, 1992, 13, 408-411.	1.1	13

#	Article	IF	Citations
523	Thermodynamics of energy extraction from fractured hot dry rock. International Journal of Heat and Fluid Flow, 1992, 13, 71-77.	1.1	9
524	Single correlation for theoretical contact melting results in various geometries. International Communications in Heat and Mass Transfer, 1992, 19, 473-483.	2.9	36
525	The optimal thickness of a wall with convection on one side. International Journal of Heat and Mass Transfer, 1992, 35, 1673-1679.	2.5	13
526	Removal of contaminant generated by a discrete source in a slot ventilated enclosure. International Journal of Heat and Mass Transfer, 1992, 35, 1169-1180.	2.5	30
527	The optimal spacing of parallel plates cooled by forced convection. International Journal of Heat and Mass Transfer, 1992, 35, 3259-3264.	2.5	245
528	Comments on â€œCoupled heat and mass transfer by natural convection from vertical surfaces in porous mediaâ€. International Journal of Heat and Mass Transfer, 1992, 35, 3498.	2.5	2
529	Convection in Porous Media. , 1992, , .		511
530	THERMODYNAMIC OPTIMIZATION OF PHASE-CHANGE ENERGY STORAGE USING TWO OR MORE MATERIALS. , 1992, , 605-616.		3
531	Natural convection from a vertical surface covered with hair. International Journal of Heat and Fluid Flow, 1991, 12, 46-53.	1.1	11
532	The effect of shrinkage on the cooking of meat. International Journal of Heat and Fluid Flow, 1991, 12, 375-383.	1.1	20
533	On the effect of the Prandtl number on the onset of BÃ©nard convection. International Journal of Heat and Fluid Flow, 1991, 12, 184-188.	1.1	7
534	Transient forced convection near a suddenly heated plate in a porous medium. International Communications in Heat and Mass Transfer, 1991, 18, 83-91.	2.9	9
535	Efficiency of transient contaminant removal from a slot ventilated enclosure. International Journal of Heat and Mass Transfer, 1991, 34, 2603-2615.	2.5	35
536	Thermodynamics of an â€˜isothermalâ€™ flow: the two-dimensional turbulent jet. International Journal of Heat and Mass Transfer, 1991, 34, 407-413.	2.5	9
537	Film condensation on an upward facing plate with free edges. International Journal of Heat and Mass Transfer, 1991, 34, 578-582.	2.5	25
538	THE Ra-Pr DOMAIN OF LAMINAR NATURAL CONVECTION IN AN ENCLOSURE HEATED FROM THE SIDE. Numerical Heat Transfer; Part A: Applications, 1991, 19, 21-41.	1.2	71
539	Convection in the Cavity Between Two Rollers: the Effect of Thermal Boundary Conditions. Journal of Heat Transfer, 1991, 113, 249-251.	1.2	2
540	Predicting the Pool Fire Vortex Shedding Frequency. Journal of Heat Transfer, 1991, 113, 261-263.	1.2	36

#	Article	IF	Citations
541	Natural Convection in a Vertical Enclosure With Internal Permeable Screen. Journal of Heat Transfer, 1991, 113, 377-383.	1.2	33
542	Thermodynamics of Phase-Change Energy Storage: The Effects of Liquid Superheating During Melting, and Irreversibility During Solidification. Journal of Solar Energy Engineering, Transactions of the ASME, 1991, 113, 2-10.	1.1	29
543	Heat Transfer from A Surface Covered with Hair. , 1991, , 823-845.		6
544	Melting in The Presence of Natural Convection in A Saturated Porous Medium. , 1991, , 739-772.		1
545	Sliding Contact Melting: The Effect of Heat Transfer in the Solid Parts. Journal of Heat Transfer, 1990, 112, 808-812.	1.2	11
546	Convection From a Periodically Stretching Plane Wall. Journal of Heat Transfer, 1990, 112, 92-99.	1.2	10
547	Optimum hair strand diameter for minimum free-convection heat transfer from a surface covered with hair. International Journal of Heat and Mass Transfer, 1990, 33, 206-209.	2.5	13
548	Solidification in the presence of high Rayleigh number convection in an enclosure cooled from the side. International Journal of Heat and Mass Transfer, 1990, 33, 661-671.	2.5	15
549	The geometric similarity of the laminar sections of boundary layer-type flows. International Communications in Heat and Mass Transfer, 1990, 17, 465-475.	2.9	0
550	Numerical study of forced convection near a surface covered with hair. International Journal of Heat and Fluid Flow, 1990, 11, 242-248.	1.1	5
551	The horizontal intrusion layer of melt in a saturated porous medium. International Journal of Heat and Fluid Flow, 1990, 11, 284-289.	1.1	7
552	Combined Heat and Mass Transfer by Natural Convection in a Porous Medium. Advances in Heat Transfer, 1990, 20, 315-352.	0.4	82
553	Convection in the Cavity Formed Between Two Cylindrical Rollers. Journal of Heat Transfer, 1990, 112, 625-631.	1.2	5
554	Theory of Heat Transfer From a Surface Covered With Hair. Journal of Heat Transfer, 1990, 112, 662-667.	1.2	35
555	The Prandtl Number Effect on the Transition in Natural Convection Along a Vertical Surface. Journal of Heat Transfer, 1990, 112, 787-790.	1.2	58
556	Thermodynamics of Energy Storage by Melting Due to Conduction or Natural Convection. Journal of Solar Energy Engineering, Transactions of the ASME, 1990, 112, 110-116.	1.1	47
557	Theory of Melting With Natural Convection in an Enclosed Porous Medium. Journal of Heat Transfer, 1989, 111, 407-415.	1.2	25
558	The Fundamentals of Sliding Contact Melting and Friction. Journal of Heat Transfer, 1989, 111, 13-20.	1.2	44

#	Article	IF	Citations
559	Theory of Rolling Contact Heat Transfer. Journal of Heat Transfer, 1989, 111, 257-263.	1.2	20
560	Melting in an enclosure heated at constant rate. International Journal of Heat and Mass Transfer, 1989, 32, 1063-1076.	2.5	49
561	Theory of heat transfer-irreversible refrigeration plants. International Journal of Heat and Mass Transfer, 1989, 32, 1631-1639.	2.5	193
562	The problem of time-dependent natural convection melting with conduction in the solid. International Journal of Heat and Mass Transfer, 1989, 32, 2447-2457.	2.5	46
563	The contact heating and lubricating flow of a body of glass. International Journal of Heat and Mass Transfer, 1989, 32, 751-760.	2.5	3
564	Analysis of melting by natural convection in an enclosure. International Journal of Heat and Fluid Flow, 1989, 10, 245-252.	1.1	18
565	Theory of heat transfer-irreversible power plants. International Journal of Heat and Mass Transfer, 1988, 31, 1211-1219.	2.5	250
566	Scaling theory of melting with natural convection in an enclosure. International Journal of Heat and Mass Transfer, 1988, 31, 1221-1235.	2.5	218
567	The process of melting by rolling contact. International Journal of Heat and Mass Transfer, 1988, 31, 2273-2283.	2.5	3
568	Ernst Schmidt's approach to fin optimization: an extension to fins with variable conductivity and the design of ducts for fluid flow. International Journal of Heat and Mass Transfer, 1988, 31, 1635-1644.	2.5	39
569	Transient natural convection in a rectangular enclosure with one heated side wall. International Journal of Heat and Fluid Flow, 1988, 9, 396-404.	1.1	61
570	Blending geometry with numerical computation: Charts for the enthalpy, absolute entropy, and flow exergy of 12 gases at low pressures. International Journal of Heat and Fluid Flow, 1988, 9, 251-253.	1.1	2
571	Transient natural convection heat transfer in a large-diameter cylinder. Experimental Thermal and Fluid Science, 1988, 1, 267-274.	1.5	2
572	Research into the origins of engineering thermodynamics. International Communications in Heat and Mass Transfer, 1988, 15, 571-580.	2.9	4
573	Scales of Melting in the Presence of Natural Convection in a Rectangular Cavity Filled With Porous Medium. Journal of Heat Transfer, 1988, 110, 526-529.	1.2	34
574	Heat Transfer-Based Reconstruction of the Concepts and Laws of Classical Thermodynamics. Journal of Heat Transfer, 1988, 110, 243-249.	1.2	4
575	Transient Natural Convection Between Two Zones in an Insulated Enclosure. Journal of Heat Transfer, 1988, 110, 116-125.	1.2	5
576	Combined Heat and Mass Transfer by Natural Convection in a Vertical Enclosure. Journal of Heat Transfer, 1987, 109, 104-112.	1.2	139

#	Article	IF	Citations
577	Unification of Three Different Theories Concerning the Ideal Conversion of Enclosed Radiation. Journal of Solar Energy Engineering, Transactions of the ASME, 1987, 109, 46-51.	1.1	82
578	Second Law Aspects of Solar Energy Conversion. , 1987, , 145-187.		1
579	The thermodynamic design of heat and mass transfer processes and devices. International Journal of Heat and Fluid Flow, 1987, 8, 258-276.	1.1	210
580	The horizontal spreading of thermal and chemical deposits in a porous medium. International Journal of Heat and Mass Transfer, 1987, 30, 2289-2303.	2.5	30
581	Mass and heat transfer by high Rayleigh number convection in a porous medium heated from below. International Journal of Heat and Mass Transfer, 1987, 30, 2341-2356.	2.5	87
582	Heat transfer correlation for benard convection in a fluid saturated porous layer. International Communications in Heat and Mass Transfer, 1987, 14, 617-626.	2.9	21
583	The basic scales of natural convection heat and mass transfer in fluids and fluid-saturated porous media. International Communications in Heat and Mass Transfer, 1987, 14, 107-123.	2.9	20
584	BUCKLING FLOWS: A NEW FRONTIER IN FLUID MECHANICS. Annual Review of Heat Transfer, 1987, 1, 262-304.	0.3	15
585	Transition to Meandering Rivulet Flow in Vertical Parallel-Plate Channels. Journal of Fluids Engineering, Transactions of the ASME, 1986, 108, 269-272.	0.8	5
586	Mass and heat transfer by natural convection in a vertical slot filled with porous medium. International Journal of Heat and Mass Transfer, 1986, 29, 403-415.	2.5	165
587	High Rayleigh number convection in a fluid overlaying a porous bed. International Journal of Heat and Fluid Flow, 1986, 7, 109-116.	1.1	54
588	CONVECTION DRIVEN BY THE NONUNIFORM ABSORPTION OF THERMAL RADIATION AT THE FREE SURFACE OF A STAGNANT POOL. Numerical Heat Transfer, 1986, 10, 483-506.	0.5	11
589	Natural Convection in a Vertical Enclosure Filled With Water Near 4Â°C. Journal of Heat Transfer, 1986, 108, 755-763.	1.2	33
590	The Instability of a Round Jet Surrounded by an Annular Shear Layer. Journal of Fluids Engineering, Transactions of the ASME, 1985, 107, 258-263.	0.8	2
591	Natural Convection in a Stably Heated Corner Filled With Porous Medium. Journal of Heat Transfer, 1985, 107, 293-298.	1.2	12
592	Mass and heat transfer by natural convection in a vertical cavity. International Journal of Heat and Fluid Flow, 1985, 6, 149-159.	1.1	57
593	Theory of Unsteady Laminar Boundary Layer Flow. International Journal of Heat and Mass Transfer, 1985, 28, 1241.	2.5	0
594	Natural convection with combined heat and mass transfer buoyancy effects in a porous medium. International Journal of Heat and Mass Transfer, 1985, 28, 1597-1611.	2.5	239

#	Article	IF	Citations
595	Heat and mass transfer by natural convection in a porous medium. International Journal of Heat and Mass Transfer, 1985, 28, 909-918.	2.5	283
596	Mass Transfer to Natural Convection Boundary Layer Flow Driven by Heat Transfer. Journal of Heat Transfer, 1985, 107, 979-981.	1.2	43
597	Second-Law Analysis of Solar Collectors With Energy Storage Capability. Journal of Solar Energy Engineering, Transactions of the ASME, 1985, 107, 244-251.	1.1	17
598	Natural Convection Near a Cold Plate Facing Upward in a Porous Medium. Journal of Heat Transfer, 1985, 107, 819-825.	1.2	23
599	Natural convection in a differentially heated corner region. Physics of Fluids, 1985, 28, 2980.	1.4	39
600	The departure from Darcy flow in natural convection in a vertical porous layer. Physics of Fluids, 1985, 28, 3477.	1.4	57
601	Natural convection near 4â€‰Â°C in a horizontal water layer heated from below. Physics of Fluids, 1984, 27, 2608.	1.4	27
602	Natural convection near 4Â°C in a water saturated porous layer heated from below. International Journal of Heat and Mass Transfer, 1984, 27, 2355-2364.	2.5	47
603	The nondarcy regime for vertical boundary layer natural convection in a porous medium. International Journal of Heat and Mass Transfer, 1984, 27, 717-722.	2.5	117
604	Penetrative convection in porous medium bounded by a horizontal wall with hot and cold spots. International Journal of Heat and Mass Transfer, 1984, 27, 1749-1757.	2.5	22
605	Natural convection in a porous layer heated and cooled along one vertical side. International Journal of Heat and Mass Transfer, 1984, 27, 1879-1891.	2.5	28
606	The Boundary Layer Natural Convection Regime in a Rectangular Cavity With Uniform Heat Flux From the Side. Journal of Heat Transfer, 1984, 106, 98-103.	1.2	97
607	Experiments on the Buckling of Thin Fluid Layers Undergoing End-Compression. Journal of Fluids Engineering, Transactions of the ASME, 1984, 106, 74-78.	0.8	2
608	Closure to â€œDiscussion of â€˜Experiments on the Buckling of Thin Fluid Layers Undergoing End-Compressionâ€™â€• (1984, ASME J. Fluids Eng., 106, p. 499). Journal of Fluids Engineering, Transactions of the ASME, 1984, 106, 499-499.	0.8	0
609	Natural convection heat transfer in a porous layer with internal flow obstructions. International Journal of Heat and Mass Transfer, 1983, 26, 815-822.	2.5	59
610	Exergy conservation in parallel thermal insulation systems. International Journal of Heat and Mass Transfer, 1983, 26, 335-340.	2.5	4
611	Theoretical considerations of transition to turbulance in natural convection near a vertical wall. International Journal of Heat and Fluid Flow, 1983, 4, 131-139.	1.1	7
612	Mechanism for transition to turbulence in buoyant plume flow. International Journal of Heat and Mass Transfer, 1983, 26, 1515-1532.	2.5	29

#	Article	IF	Citations
613	The boundary layer regime in a porous layer with uniform heat flux from the side. International Journal of Heat and Mass Transfer, 1983, 26, 1339-1346.	2.5	100
614	Natural convection in vertically and horizontally layered porous media heated from the side. International Journal of Heat and Mass Transfer, 1983, 26, 1805-1814.	2.5	65
615	Natural convection in a partially divided enclosure. International Journal of Heat and Mass Transfer, 1983, 26, 1867-1878.	2.5	82
616	Unsteady natural convection in a porous layer. Physics of Fluids, 1983, 26, 1183.	1.4	26
617	The fluid dynamics of an attic space. Journal of Fluid Mechanics, 1983, 131, 251.	1.4	126
618	Entropy Generation Through Heat and Fluid Flow. Journal of Applied Mechanics, Transactions ASME, 1983, 50, 475-475.	1.1	226
619	Buckling of a turbulent jet surrounded by a highly flexible duct. Physics of Fluids, 1983, 26, 3193.	1.4	3
620	Natural Convection at the Interface Between a Vertical Porous Layer and an Open Space. Journal of Heat Transfer, 1983, 105, 124-129.	1.2	34
621	Numerical Study of Transient High Rayleigh Number Convection in an Attic-Shaped Porous Layer. Journal of Heat Transfer, 1983, 105, 476-484.	1.2	27
622	Natural Convection Experiments in a Triangular Enclosure. Journal of Heat Transfer, 1983, 105, 652-655.	1.2	76
623	The â€œHeatlineâ€•Visualization of Convective Heat Transfer. Journal of Heat Transfer, 1983, 105, 916-919.	1.2	391
624	The Buckling of a Vertical Liquid Column. Journal of Fluids Engineering, Transactions of the ASME, 1983, 105, 469-473.	0.8	3
625	The nonaxisymmetric (buckling) flow regime of fast capillary jets. Physics of Fluids, 1982, 25, 1506.	1.4	7
626	The meandering fall of paper ribbons. Physics of Fluids, 1982, 25, 741.	1.4	7
627	Natural Convection in an Attic-Shaped Space Filled With Porous Material. Journal of Heat Transfer, 1982, 104, 241-247.	1.2	22
628	Fin Geometry for Minimum Entropy Generation in Forced Convection. Journal of Heat Transfer, 1982, 104, 616-623.	1.2	142
629	Transient Natural Convection Experiments in Shallow Enclosures. Journal of Heat Transfer, 1982, 104, 533-538.	1.2	52
630	Second-Law Analysis in Heat Transfer and Thermal Design. Advances in Heat Transfer, 1982, , 1-58.	0.4	430

#	Article	IF	Citations
631	Theoretical explanation for the incipient formation of meanders in straight rivers. Geophysical Research Letters, 1982, 9, 831-834.	1.5	2
632	Theory of instantaneous sinuous structure in turbulent buoyant plumes. Heat and Mass Transfer, 1982, 16, 237-242.	0.2	2
633	Optimum flowrate history for cooldown and energy storage processes. International Journal of Heat and Mass Transfer, 1982, 25, 1087-1092.	2.5	21
634	Extraction of exergy from solar collectors under time-varying conditions. International Journal of Heat and Fluid Flow, 1982, 3, 67-72.	1.1	47
635	A supply-side approach to energy policy. Energy Policy, 1982, 10, 153-157.	4.2	8
636	Experimental study of high-Rayleigh-number convection in a horizontal cavity with different end temperatures. Journal of Fluid Mechanics, 1981, 109, 283-299.	1.4	64
637	Penetration of free convection into a lateral cavity. Journal of Fluid Mechanics, 1981, 103, 465.	1.4	27
638	Comments on â€˜â€˜Viscous buckling of thin fluid layersâ€™â€™. Physics of Fluids, 1981, 24, 1764.	1.4	3
639	Lateral Intrusion of Natural Convection into a Horizontal Porous Structure. Journal of Heat Transfer, 1981, 103, 237-241.	1.2	11
640	Heat transfer through single and double vertical walls in natural convection: Theory and experiment. International Journal of Heat and Mass Transfer, 1981, 24, 1611-1620.	2.5	71
641	Heat transfer across a vertical impermeable partition imbedded in porous medium. International Journal of Heat and Mass Transfer, 1981, 24, 1237-1245.	2.5	73
642	Reply to â€œcomments on â€˜a synthesis of analytical results for natural convection heat transfer across rectangular enclosuresâ€™â€• International Journal of Heat and Mass Transfer, 1981, 24, 1557-1558.	2.5	1
643	On the buckling property of inviscid jets and the origin of turbulence. Letters in Heat and Mass Transfer, 1981, 8, 187-194.	0.3	25
644	Natural Convection in Horizontal Duct Connecting Two Fluid Reservoirs. Journal of Heat Transfer, 1981, 103, 108-113.	1.2	22
645	Second Law Analysis and Synthesis of Solar Collector Systems. Journal of Solar Energy Engineering, Transactions of the ASME, 1981, 103, 23-28.	1.1	174
646	Numerische Berechnung der natÃ¼rlichen Konvektion in einem waagerechten Kanal mit ungleichen Endtemperaturen. Heat and Mass Transfer, 1980, 14, 269-280.	0.2	9
647	A synthesis of analytical results for natural convection heat transfer across rectangular enclosures. International Journal of Heat and Mass Transfer, 1980, 23, 723-726.	2.5	75
648	Natural convection in a vertical cylindrical well filled with porous medium. International Journal of Heat and Mass Transfer, 1980, 23, 726-729.	2.5	31

#	Article	IF	Citations
649	Experimental study of natural convection in a horizontal cylinder with different end temperatures. International Journal of Heat and Mass Transfer, 1980, 23, 1117-1126.	2.5	40
650	Conservation of available work (exergy) by using promoters of swirl flow in forced convection heat transfer. Energy, 1980, 5, 587-596.	4.5	41
651	Second law analysis in heat transfer. Energy, 1980, 5, 720-732.	4.5	575
652	End-use matching of solar energy systems. Energy, 1980, 5, 875-890.	4.5	7
653	Evaluation of heat transfer augmentation techniques based on their impact on entropy generation. Letters in Heat and Mass Transfer, 1980, 7, 97-106.	0.3	67
654	The effect of hydrogen bubbles on the thymol blue velocity measurement technique. International Journal of Heat and Fluid Flow, 1980, 2, 201-204.	1.1	3
655	Discussion: â€œA Parametric Analysis of the Performance of Internally Finned Tubes for Heat Exchanger Applicationâ€•(Webb, R. L., and Scott, M. J., 1980, ASME J. Heat Transfer, 102, pp. 38â€“43). Journal of Heat Transfer, 1980, 102, 586-587.	1.2	2
656	Natural Convection on Both Sides of a Vertical Wall Separating Fluids at Different Temperatures. Journal of Heat Transfer, 1980, 102, 630-635.	1.2	49
657	Heat Transfer by Forced and Free Convection in a Horizontal Channel with Differentially Heated Ends. Journal of Heat Transfer, 1979, 101, 417-421.	1.2	7
658	Natural convection in horizontal space bounded by two concentric cylinders with different end temperatures. International Journal of Heat and Mass Transfer, 1979, 22, 919-927.	2.5	18
659	Optimization criteria for irreversible thermal processes (criterii de optimizare a proceselor termice) Tj ETQq1 1 0.784314 rgBT /Overlo	2.5	2
660	On the boundary layer regime in a vertical enclosure filled with a porous medium. Letters in Heat and Mass Transfer, 1979, 6, 93-102.	0.3	201
661	A general variational principle for thermal insulation system design. International Journal of Heat and Mass Transfer, 1979, 22, 219-228.	2.5	60
662	A Study of Entropy Generation in Fundamental Convective Heat Transfer. Journal of Heat Transfer, 1979, 101, 718-725.	1.2	1,259
663	Note on Gill's solution for free convection in a vertical enclosure. Journal of Fluid Mechanics, 1979, 90, 561-568.	1.4	78
664	Fully developed natural counterflow in a long horizontal pipe with different end temperatures. International Journal of Heat and Mass Transfer, 1978, 21, 701-708.	2.5	78
665	General criterion for rating heat-exchanger performance. International Journal of Heat and Mass Transfer, 1978, 21, 655-658.	2.5	233
666	Effect of axial conduction and metal-helium heat transfer on the local stability of superconducting composite media. Cryogenics, 1978, 18, 433-441.	0.9	24

#	Article	IF	Citations
667	Natural convection in an infinite porous medium with a concentrated heat source. Journal of Fluid Mechanics, 1978, 89, 97-107.	1.4	56
668	Two Thermodynamic Optima in the Design of Sensible Heat Units for Energy Storage. Journal of Heat Transfer, 1978, 100, 708-712.	1.2	130
669	Laminar Natural Convection Heat Transfer in a Horizontal Cavity with Different End Temperatures. Journal of Heat Transfer, 1978, 100, 641-647.	1.2	119
670	Natural Convection in a Horizontal Porous Medium Subjected to an End-to-End Temperature Difference. Journal of Heat Transfer, 1978, 100, 191-198.	1.2	61
671	Laminar Free Convection Heat Transfer through Horizontal Duct Connecting Two Fluid Reservoirs at Different Temperatures. Journal of Heat Transfer, 1978, 100, 725-727.	1.2	3
672	Transient Heat Conduction in Cryogenic Current Cables Following a Loss-of-Coolant Accident. Journal of Heat Transfer, 1977, 99, 689-691.	1.2	2
673	Method for estimating the refrigeration costs of supercritical helium cooled cable superconductors. IEEE Transactions on Magnetics, 1977, 13, 686-689.	1.2	2
674	Thermal performance of the rotor of the MIT-EPRI 3 MVA superconducting alternator. IEEE Transactions on Magnetics, 1977, 13, 763-766.	1.2	2
675	The Concept of Irreversibility in Heat Exchanger Design: Counterflow Heat Exchangers for Gas-to-Gas Applications. Journal of Heat Transfer, 1977, 99, 374-380.	1.2	281
676	Refrigerator-recirculator systems for large forced-cooled superconducting magnets. Cryogenics, 1977, 17, 97-105.	0.9	8
677	Refrigeration for rotating superconducting windings of large ac electric machines. Cryogenics, 1976, 16, 153-159.	0.9	14
678	Criterion for burn-up conditions in gas-cooled cryogenic current leads. Cryogenics, 1976, 16, 515-518.	0.9	16
679	Discrete cooling of low heat leak supports to 4.2 K. Cryogenics, 1975, 15, 290-292.	0.9	16
680	Flow instabilities in gas-cooled cryogenic current leads. IEEE Transactions on Magnetics, 1975, 11, 573-575.	1.2	8
681	Material selection for the torque tubes of large superconducting rotating machinery. Cryogenics, 1974, 14, 313-315.	0.9	11
682	Thermodynamic optimization of mechanical supports for cryogenic apparatus. Cryogenics, 1974, 14, 158-163.	0.9	50
683	MITâ€”EEI Superconducting Synchronous Machine. , 1973, , 372-381.		4
684	Heat Exchangers for Vapor-Cooled Conducting Supports of Cryostats. , 1960, , 247-256.		2

#	Article	IF	Citations
685	Vascularized Multi-Functional Materials and Structures. Advanced Materials Research, 0, 47-50, 511-514.	0.3	2
686	Thermodynamics Fundamentals. , 0, , 802-817.		1
687	PROFESSOR SOMCHAI WONGWISES ON HIS 60TH BIRTHDAY. Journal of Thermal Engineering, 0, , 438-439.	0.8	0