Adrian Bejan

List of Publications by Year in Descending Order

685 papers	26,227 citations	73 h-index	136 g-index
750 ext. papers	28,830 ext. citations	3.6 avg, IF	7.75 L-index

#	Paper	IF	Citations
685	Evolutionary design: Heat and fluid flow together. *International Communications in Heat and Mass Transfer*, **2022**, 132, 105924	5.8	0
684	Virus spreading and heat spreading. *International Journal of Thermal Sciences*, **2022**, 174, 107433	4.1	0
683	Evolution, physics, and education.. *BioSystems*, **2022**, 215-216, 104663	1.9	0
682	Nationalism and forgetfulness in the spreading of thermal sciences. *International Journal of Thermal Sciences*, **2021**, 163, 106802	4.1	1
681	Evolutionary design of composite structures for thermal conductance and strength. *International Communications in Heat and Mass Transfer*, **2021**, 125, 105293	5.8	3
680	Heat sinks with minichannels and flow distributors based on constructal law. *International Communications in Heat and Mass Transfer*, **2021**, 125, 105122	5.8	5
679	Inflected wings in flight: Uniform flow of stresses makes strong and light wings for stable flight. *Journal of Theoretical Biology*, **2021**, 508, 110452	2.3	1
678	Artificial Intelligence Evolution in Smart Buildings for Energy Efficiency. *Applied Sciences (Switzerland)*, **2021**, 11, 763	2.6	14
677	Morphing the design to go with the times. *International Communications in Heat and Mass Transfer*, **2021**, 120, 104837	5.8	4
676	Cell and extracellular matrix growth theory and its implications for tumorigenesis. *BioSystems*, **2021** , 201, 104331	1.9	2
675	Tree flows through hierarchical slits and orifices. *International Communications in Heat and Mass Transfer*, **2021**, 128, 105589	5.8	1
674	Purpose in Thermodynamics. *Energies*, **2021**, 14, 408	3.1	3
673	Human evolution is biological & technological evolution. *BioSystems*, **2020**, 195, 104156	1.9	10
672	Freedom and evolution in the dynamics of social systems. *BioSystems*, **2020**, 195, 104158	1.9	8
671	Energy theory of periodic economic growth. *International Journal of Energy Research*, **2020**, 44, 5231-5242	4.5	6
670	University Rankings: Quality, Size and Permanence. *European Review*, **2020**, 28, 537-558	0.3	2
669	Convergent Evolution of Boats with Sails. *Scientific Reports*, **2020**, 10, 2703	4.9	2

668	AI and freedom for evolution in energy science. *Energy and AI*, **2020**, 1, 100001	12.6	16
667	Geometric Optimization of Cooling Techniques **2020**, 1-46		1
666	Discipline in Thermodynamics. *Energies*, **2020**, 13, 2487	3.1	8
665	Economies of Scale **2020**, 13-20		0
664	Hierarchy **2020**, 21-35		
663	Nature and Power **2020**, 1-12		
662	Social Organization and Innovation **2020**, 53-64		
661	Diminishing Returns **2020**, 123-134		
660	Science and Freedom **2020**, 135-145		
659	Freedom and Evolution **2020**,		18
658	Boundary layers from constructal law. *International Communications in Heat and Mass Transfer*, **2020**, 117, 104672	5.8	3
657	Design, additive manufacturing, and performance of heat exchanger with a novel flow-path architecture. *Applied Thermal Engineering*, **2020**, 180, 115775	5.8	12
656	The evolution of air and maritime transport. *Applied Physics Reviews*, **2019**, 6, 021319	17.3	15
655	Why the Days Seem Shorter as We Get Older. *European Review*, **2019**, 27, 187-194	0.3	6
654	Professor Yogesh Jaluria on his 70th Birthday. *International Journal of Heat and Mass Transfer*, **2019**, 140, 1106-1107	4.9	
653	Thermodynamics of heating. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2019**, 475, 20180820	2.4	10
652	Heat tubes: Conduction and convection. *International Journal of Heat and Mass Transfer*, **2019**, 137, 1258-1262	4.9	2
651	Counter cross-flow evaporator geometries for supercritical organic Rankine cycles. *International Journal of Heat and Mass Transfer*, **2019**, 135, 425-435	4.9	7

650	Constructal Design of Aircraft: Flow of Stresses and Aeroelastic Stability. *AIAA Journal*, **2019**, 57, 4393-4405	2.5	7
649	Current trends in constructal law and evolutionary design. *Heat Transfer - Asian Research*, **2019**, 48, 3574-3589	2.5	27
648	Evolutionary design with freedom: Time dependent heat spreading. *International Communications in Heat and Mass Transfer*, **2019**, 108, 104335	5.8	1
647	Professor Sadik Kakaç on His 85th Birthday. *Heat and Mass Transfer*, **2019**, 55, 933-935	2.2	
646	Novel evaporator architecture with entrance-length crossflow-paths for supercritical Organic Rankine Cycles. *International Journal of Heat and Mass Transfer*, **2018**, 119, 208-222	4.9	6
645	Comment on Study on the consistency between field synergy principle and entransy dissipation extremum principle. *International Journal of Heat and Mass Transfer*, **2018**, 120, 1187-1188	4.9	16
644	The evolutionary design of cooling a plate with one stream. *International Journal of Heat and Mass Transfer*, **2018**, 116, 9-15	4.9	12
643	Evolutionary design of conducting layers with fins and freedom. *International Journal of Heat and Mass Transfer*, **2018**, 126, 926-934	4.9	3
642	Constructal Theory in Heat Transfer **2018**, 329-360		7
641	Thermodynamics today. *Energy*, **2018**, 160, 1208-1219	7.9	22
640	On celebration of Professor Abdulmajeed A. Mohamad's 65th birthday. *International Journal of Heat and Mass Transfer*, **2018**, 126, 1356-1357	4.9	
639	Without Engineering, Civilization does not Exist. *Mechanical Engineering*, **2018**, 140, 42-47	0.9	1
638	The fastest animals and vehicles are neither the biggest nor the fastest over lifetime. *Scientific Reports*, **2018**, 8, 12925	4.9	4
637	Social organization: The thermodynamic basis. *International Journal of Energy Research*, **2018**, 42, 3770-3779	4.5	6
636	Letter to the editor on "Temperature-heat diagram analysis method for heat recovery physical adsorption refrigeration cycle: Taking multi stage cycle as an example" by S. Z. Xu et al., vol. 74, 2017, pp. 254–268. *International Journal of Refrigeration*, **2018**, 90, 277-279	3.8	10
635	Medical imaging dose optimisation from ground up: expert opinion of an international summit. *Journal of Radiological Protection*, **2018**, 38, 967-989	1.2	24
634	Economies of scale: The physics basis. *Journal of Applied Physics*, **2017**, 121, 044907	2.5	17
633	Internal Natural Convection: Heating from the Side **2017**, 363-437		

632	Internal Natural Convection: Heating from Below **2017**, 241-361		1
631	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	4.9	13
630	External Natural Convection **2017**, 161-239		
629	Geophysical Aspects **2017**, 595-628		
628	Double-Diffusive Convection **2017**, 473-537		
627	Response to Comment on Economies of scale: The physics basis[J. Appl. Phys. 121, 206101 (2017)]. *Journal of Applied Physics*, **2017**, 121, 206102	2.5	2
626	Evolution in thermodynamics. *Applied Physics Reviews*, **2017**, 4, 011305	17.3	69
625	Mass Transfer in a Porous Medium: Multicomponent and Multiphase Flows **2017**, 57-84		1
624	Forced Convection **2017**, 85-160		0
623	Mixed Convection **2017**, 439-471		
622	Wealth inequality: The physics basis. *Journal of Applied Physics*, **2017**, 121, 124903	2.5	16
621	Convection in Porous Media **2017**,		209
620	Mechanics of Fluid Flow Through a Porous Medium **2017**, 1-35		3
619	Convection with Change of Phase **2017**, 539-593		
618	Evolution as Physics: The Human & Machine Species. *European Review*, **2017**, 25, 140-149	0.3	5
617	Horizontal extent of the urban heat dome flow. *Scientific Reports*, **2017**, 7, 11681	4.9	19
616	Hierarchy in air travel: Few large and many small. *Journal of Applied Physics*, **2017**, 122, 024904	2.5	6
615	Entrance-length dendritic plate heat exchangers. *International Journal of Heat and Mass Transfer*, **2017**, 114, 1350-1356	4.9	22

614	The constructal size of a heat exchanger. *Journal of Applied Physics*, **2017**, 122, 064902	2.5	18
613	Constructal Theory in Heat Transfer **2017**, 1-32		2
612	Letter to the editor of renewable and sustainable energy reviews. *Renewable and Sustainable Energy Reviews*, **2016**, 53, 1636-1637	16.2	8
611	Rolling stones and turbulent eddies: why the bigger live longer and travel farther. *Scientific Reports*, **2016**, 6, 21445	4.9	10
610	Life and evolution as physics. *Communicative and Integrative Biology*, **2016**, 9, e1172159	1.7	12
609	Counterflow heat exchanger with core and plenums at both ends. *International Journal of Heat and Mass Transfer*, **2016**, 99, 622-629	4.9	12
608	Constructal design of salt-gradient solar pond fields. *International Journal of Energy Research*, **2016**, 40, 1428-1446	4.5	16
607	Professor Arcot R. Balakrishnan on his 65th birthday. *International Journal of Heat and Mass Transfer*, **2016**, 94, 498-499	4.9	
606	Evolution of Airplanes, and What Price Speed?. *AIAA Journal*, **2016**, 54, 1120-1123	2.1	7
605	Constructal thermodynamics. *International Journal of Heat and Technology*, **2016**, 34, S1-S8	2.2	11
604	Constructal thermodynamics. *International Journal of Heat and Technology*, **2016**, 34, S1-S8	2.2	9
603	Accelerated Evolution. *Mechanical Engineering*, **2016**, 138, 38-43	0.9	
602	The evolution of helicopters. *Journal of Applied Physics*, **2016**, 120, 014901	2.5	14
601	Distributed energy storage: Time-dependent tree flow design. *Journal of Applied Physics*, **2016**, 119, 184901	2.5	4
600	Response to □Comment on □The physics origin of the hierarchy of bodies in space□[J. Appl. Phys. 120, 126101 (2016)]. *Journal of Applied Physics*, **2016**, 120, 126102	2.5	
599	Complexity, organization, evolution, and constructal law. *Journal of Applied Physics*, **2016**, 119, 074901	2.5	54
598	The physics origin of the hierarchy of bodies in space. *Journal of Applied Physics*, **2016**, 119, 094901	2.5	10
597	Constructal design for convection melting of a phase change body. *International Journal of Heat and Mass Transfer*, **2016**, 99, 762-769	4.9	15

596	Arrays of flow channels with heat transfer embedded in conducting walls. *International Journal of Heat and Mass Transfer*, **2016**, 99, 504-511	4.9	8
595	**2016**,		157
594	Thermal coupling between a helical pipe and a conducting volume. *International Journal of Heat and Mass Transfer*, **2015**, 83, 762-767	4.9	3
593	The robustness of the permeability of constructal tree-shaped fissures. *International Journal of Heat and Mass Transfer*, **2015**, 90, 259-265	4.9	14
592	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	4.1	5
591	The evolutionary design of condensers. *Journal of Applied Physics*, **2015**, 117, 125101	2.5	8
590	Constructal design of gas-cooled electric power generators, self-pumping and atmospheric circulation. *International Journal of Heat and Mass Transfer*, **2015**, 91, 647-655	4.9	7
589	Vascularization for cooling and reduced thermal stresses. *International Journal of Heat and Mass Transfer*, **2015**, 80, 858-864	4.9	17
588	Heatlines (1983) versus synergy (1998). *International Journal of Heat and Mass Transfer*, **2015**, 81, 654-658	4.9	37
587	Technology evolution, from the constructal law: heat transfer designs. *International Journal of Energy Research*, **2015**, 39, 919-928	4.5	12
586	Constructal design of latent thermal energy storage with vertical spiral heaters. *International Journal of Heat and Mass Transfer*, **2015**, 81, 283-288	4.9	38
585	Sustainability: The Water and Energy Problem, and the Natural Design Solution. *European Review*, **2015**, 23, 481-488	0.3	9
584	Exergy Analysis, Entropy Generation Minimization, and the Constructal Law **2015**, 1-26		
583	Morphing tree structures for latent thermal energy storage. *Journal of Applied Physics*, **2015**, 117, 224901	2.5	22
582	Cerebral oxygenation and optimal vascular brain organization. *Journal of the Royal Society Interface* , **2015**, 12,	4.1	20
581	Thermodynamics Fundamentals **2015**, 1-22		
580	Every Snowflake is Not Unique. *Mechanical Engineering*, **2015**, 137, 40-41	0.9	1
579	Constructal Law: Optimization as Design Evolution. *Journal of Heat Transfer*, **2015**, 137,	1.8	73

578	Why humans build fires shaped the same way. *Scientific Reports*, **2015**, 5, 11270	4.9	10
577	Constructal design of evacuation from a three-dimensional living space. *Physica A: Statistical Mechanics and Its Applications*, **2015**, 422, 47-57	3.3	13
576	Maxwell's demons everywhere: evolving design as the arrow of time. *Scientific Reports*, **2014**, 4, 4017	4.9	26
575	Phase change heat storage in an enclosure with vertical pipe in the center. *International Journal of Heat and Mass Transfer*, **2014**, 72, 329-335	4.9	44
574	Power from a hot gas stream with superheater and reheater in parallel. *International Journal of Heat and Mass Transfer*, **2014**, 73, 29-32	4.9	6
573	The S curve of energy storage by melting. *Journal of Applied Physics*, **2014**, 116, 114902	2.5	12
572	Constructal design of thermoelectric power packages. *International Journal of Heat and Mass Transfer*, **2014**, 79, 291-299	4.9	6
571	The evolution of airplanes. *Journal of Applied Physics*, **2014**, 116, 044901	2.5	32
570	Assemblies of heat pumps served by a single underground heat exchanger. *International Journal of Heat and Mass Transfer*, **2014**, 75, 327-336	4.9	9
569	Double tree structure in a conducting body. *International Journal of Heat and Mass Transfer*, **2014**, 77, 140-146	4.9	4
568	Thermal coupling between a spiral pipe and a conducting volume. *International Journal of Heat and Mass Transfer*, **2014**, 77, 202-207	4.9	6
567	Evolution: why all plumes and jets evolve to round cross sections. *Scientific Reports*, **2014**, 4, 4730	4.9	18
566	Entransy, and Its Lack of Content in Physics. *Journal of Heat Transfer*, **2014**, 136,	1.8	51
565	Constructal Underground Designs for Ground-Coupled Heat Pumps. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2014**, 136,	2.3	8
564	Vascular design for reducing hot spots and stresses. *Journal of Applied Physics*, **2014**, 115, 174904	2.5	14
563	Comment on Application of Entransy Analysis in Self-Heat Recuperation Technology *Industrial & Engineering Chemistry Research*, **2014**, 53, 18352-18353	3.9	13
562	Distribution of size in multi-evaporator air conditioning systems. *International Journal of Energy Research*, **2014**, 38, 652-657	4.5	5
561	Ecohydrological flow networks in the subsurface. *Ecohydrology*, **2014**, 7, n/a-n/a	2.5	13

560	Constructal distribution of multi-layer insulation. *International Journal of Energy Research*, **2013**, 37, 153-160	4.5	21
559	Mechanics of Fluid Flow Through a Porous Medium **2013**, 1-29		11
558	Convection in Porous Media **2013**,		523
557	Trees and serpentines in a conducting body. *International Journal of Heat and Mass Transfer*, **2013**, 56, 488-494	4.9	15
556	Power from a hot gas stream with multiple superheaters and reheaters. *International Journal of Heat and Mass Transfer*, **2013**, 67, 153-158	4.9	13
555	Technology Evolution, from the Constructal Law. *Advances in Heat Transfer*, **2013**, 45, 183-207	1.9	4
554	Effect of size on ground-coupled heat pump performance. *International Journal of Heat and Mass Transfer*, **2013**, 64, 115-121	4.9	11
553	One underground heat exchanger for multiple heat pumps. *International Journal of Heat and Mass Transfer*, **2013**, 65, 727-738	4.9	11
552	Constructal design of regenerators. *International Journal of Energy Research*, **2013**, 37, 1509-1518	4.5	9
551	Entropy Generation Minimization, Exergy Analysis, and the Constructal Law. *Arabian Journal for Science and Engineering*, **2013**, 38, 329-340		29
550	Constructal flow orientation in conjugate cooling channels with internal heat generation. *International Journal of Heat and Mass Transfer*, **2013**, 57, 241-249	4.9	17
549	Culture and the Constructal-Law evolution of the human and machine species: comment on "An evolutionary framework for cultural change: selectionism versus communal exchange" by L. Gabora. *Physics of Life Reviews*, **2013**, 10, 151-3	2.1	
548	Constructal law: pleasure, golden ratio, animal locomotion and the design of pedestrian evacuation: comment on "The emergence of design in pedestrian dynamics: locomotion, self-organization, walking paths and the constructal law" by A. Miguel. *Physics of Life Reviews*, **2013**, 10, 199-201	2.1	3
547	Underground heat flow patterns for dense neighborhoods with heat pumps. *International Journal of Heat and Mass Transfer*, **2013**, 62, 632-637	4.9	2
546	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	4.9	16
545	Double-Diffusive Convection **2013**, 425-468		
544	Fundamental Principles **2013**, 1-29		
543	Laminar Boundary Layer Flow **2013**, 30-95		

542	Laminar Duct Flow **2013**, 96-167		
541	External Natural Convection **2013**, 168-232		1
540	Internal Natural Convection **2013**, 233-294		1
539	Transition to Turbulence **2013**, 295-319		
538	Turbulent Boundary Layer Flow **2013**, 320-368		
537	Turbulent Duct Flow **2013**, 369-397		
536	Free Turbulent Flows **2013**, 398-427		
535	Convection with Change of Phase **2013**, 428-488		1
534	Mass Transfer **2013**, 489-536		2
533	Convection in Porous Media **2013**, 537-605		4
532	Constructal law of design and evolution: Physics, biology, technology, and society. *Journal of Applied Physics*, **2013**, 113, 151301	2.5	205
531	External Natural Convection **2013**, 145-220		1
530	Constructal design of pedestrian evacuation from an area. *Journal of Applied Physics*, **2013**, 113, 034904	2.5	11
529	Heat Transfer Through a Porous Medium **2013**, 31-46		16
528	Constructal paddle design with fingers. *Journal of Applied Physics*, **2013**, 113, 194902	2.5	
527	Why solidification has an S-shaped history. *Scientific Reports*, **2013**, 3,	4.9	21
526	Stepping on the Water. *Mechanical Engineering*, **2013**, 135, 38-41	0.9	1
525	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	2.3	3

524	The evolution of long distance running and swimming. *International Journal of Design and Nature and Ecodynamics*, **2013**, 8, 17-28	2.3	2
523	Mixed Convection **2013**, 397-424		
522	Convection with Change of Phase **2013**, 469-522		
521	Geophysical Aspects **2013**, 523-553		
520	Internal Natural Convection: Heating from Below **2013**, 221-329		0
519	Mass Transfer in a Porous Medium: Multicomponent and Multiphase Flows **2013**, 47-68		
518	Internal Natural Convection: Heating from the Side **2013**, 331-396		
517	The Constructal Design of Humanity on the Globe. *Understanding Complex Systems*, **2013**, 1-20	0.4	
516	**2013**,		462
515	The constructal-law physics of why swimmers must spread their fingers and toes. *Journal of Theoretical Biology*, **2012**, 308, 141-6	2.3	12
514	Why the bigger live longer and travel farther: animals, vehicles, rivers and the winds. *Scientific Reports*, **2012**, 2, 594	4.9	37
513	Constructal design of underground heat sources or sinks for the annual cycle. *International Journal of Heat and Mass Transfer*, **2012**, 55, 7832-7837	4.9	12
512	Serpentine thermal coupling between a stream and a conducting body. *Journal of Applied Physics*, **2012**, 111, 044911	2.5	14
511	The steepest S curve of spreading and collecting flows: Discovering the invading tree, not assuming it. *Journal of Applied Physics*, **2012**, 111, 114903	2.5	13
510	Tree-shaped fluid flow and heat storage in a conducting solid. *Journal of Applied Physics*, **2012**, 111, 014903	2.5	18
509	Constructal design for pedestrian movement in living spaces: Evacuation configurations. *Journal of Applied Physics*, **2012**, 111, 054903	2.5	13
508	The S-Curves are Everywhere. *Mechanical Engineering*, **2012**, 134, 44-47	0.9	6
507	Design in Nature. *Mechanical Engineering*, **2012**, 134, 42-47	0.9	23

506	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) 10381043. *Chemical Engineering and Processing: Process Intensification*, **2012**, 56, 34	3.7	14
505	The physics of spreading ideas. *International Journal of Heat and Mass Transfer*, **2012**, 55, 802-807	4.9	34
504	Constructal design of distributed energy systems: Solar power and water desalination. *International Journal of Heat and Mass Transfer*, **2012**, 55, 2213-2218	4.9	14
503	Freely morphing tree structures in a conducting body. *International Journal of Heat and Mass Transfer*, **2012**, 55, 4744-4753	4.9	16
502	Why we want power: Economics is physics. *International Journal of Heat and Mass Transfer*, **2012**, 55, 4929-4935	4.9	5
501	Vascularization for cooling a plate heated by a randomly moving source. *Journal of Applied Physics*, **2012**, 112, 084906	2.5	11
500	Climate change, in the framework of the Constructal Law. *International Journal of Global Warming*, **2012**, 4, 242	0.6	13
499	The natural design of hierarchy: basketball versus academics. *International Journal of Design and Nature and Ecodynamics*, **2012**, 7, 14-26	2.3	3
498	The constructal law origin of the logistics S curve. *Journal of Applied Physics*, **2011**, 110, 024901	2.5	46
497	Animals Spinning their Wheels. *Mechanical Engineering*, **2011**, 133, 44-46	0.9	0
496	The constructal law and the evolution of design in nature. *Physics of Life Reviews*, **2011**, 8, 209-40	2.1	209
495	The constructal law makes biology and economics be like physics. *Physics of Life Reviews*, **2011**, 8, 261-263	2.1	4
494	The effect of size on efficiency: Power plants and vascular designs. *International Journal of Heat and Mass Transfer*, **2011**, 54, 1475-1481	4.9	34
493	Vascularization for cooling and mechanical strength. *International Journal of Heat and Mass Transfer* , **2011**, 54, 2774-2781	4.9	31
492	Steam generator structure: Continuous model and constructal design. *International Journal of Energy Research*, **2011**, 35, 336-345	4.5	39
491	Constructal design of distributed cooling on the landscape. *International Journal of Energy Research* , **2011**, 35, 805-812	4.5	13
490	Configuration of heat sources or sinks in a finite volume. *Journal of Applied Physics*, **2011**, 110, 023502	2.5	5
489	Climate change, in the framework of the constructal law **2011**,		3

488	The Constructal Law and the Design of the Biosphere: Nature and Globalization. *Journal of Heat Transfer*, **2011**, 133,	1.8	19
487	Hybrid grid and tree structures for cooling and mechanical strength. *Journal of Applied Physics*, **2011**, 110, 064910	2.5	15
486	Distributed energy tapestry for heating the landscape. *Journal of Applied Physics*, **2010**, 108, 124904	2.5	9
485	Natural constructal emergence of vascular design with turbulent flow. *Journal of Applied Physics*, **2010**, 107, 114901	2.5	26
484	Vascular structures for volumetric cooling and mechanical strength. *Journal of Applied Physics*, **2010** , 107, 044901	2.5	12
483	Vascular Countercurrent Network for 3-D Triple-Layered Skin Structure with Radiation Heating. *Numerical Heat Transfer; Part A: Applications*, **2010**, 57, 369-391	2.3	16
482	Constructal dendritic configuration for the radiation heating of a solid stream. *Journal of Applied Physics*, **2010**, 107, 114910	2.5	25
481	The constructal-law origin of the wheel, size, and skeleton in animal design. *American Journal of Physics*, **2010**, 78, 692-699	0.7	25
480	Constructal Distribution of Solar Chimney Power Plants: Few Large and Many Small. *International Journal of Green Energy*, **2010**, 7, 577-592	3	21
479	The constructal law of design and evolution in nature. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2010**, 365, 1335-47	5.8	176
478	Constructal solar chimney configuration. *International Journal of Heat and Mass Transfer*, **2010**, 53, 327-333	4.9	81
477	Design in nature, thermodynamics, and the constructal law: comment on "Life, hierarchy, and the thermodynamic machinery of planet Earth" by A. Kleidon. *Physics of Life Reviews*, **2010**, 7, 467-70; discussion 473-6	2.1	4
476	Constructal architecture for heating a stream by convection. *International Journal of Heat and Mass Transfer*, **2010**, 53, 2248-2255	4.9	19
475	Constructal multi-scale pin fins. *International Journal of Heat and Mass Transfer*, **2010**, 53, 2773-2779	4.9	56
474	Fluid flow and heat transfer in vascularized cooling plates. *International Journal of Heat and Mass Transfer*, **2010**, 53, 3607-3614	4.9	25
473	The "flow of stresses" concept: The analogy between mechanical strength and heat convection. *International Journal of Heat and Mass Transfer*, **2010**, 53, 2963-2968	4.9	34
472	Constructal multi-tube configuration for natural and forced convection in cross-flow. *International Journal of Heat and Mass Transfer*, **2010**, 53, 5121-5128	4.9	39
471	Vascular design of constructal structures with low flow resistance and nonuniformity. *International Journal of Thermal Sciences*, **2010**, 49, 2309-2318	4.1	26

470	Two hierarchies in science: the free flow of ideas and the academy. *International Journal of Design and Nature and Ecodynamics*, **2010**, 4, 386-394	2.3	9
469	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	2.3	22
468	Few large and many small: Hierarchy in movement on earth. *International Journal of Design and Nature and Ecodynamics*, **2010**, 5, 254-267	2.3	17
467	La loi constructale des sch?mas d?organisation dans la nature?: Esp?ces ??humaines et techniques?? et animales **2010**, N?49, 61	0.1	
466	Transient cooling response of smart vascular materials for self-cooling. *Journal of Applied Physics*, **2009**, 105, 064904	2.5	15
465	Leaflike architecture for cooling a flat body. *Journal of Applied Physics*, **2009**, 106, 044906	2.5	17
464	The evolution of speed, size and shape in modern athletics. *Journal of Experimental Biology*, **2009**, 212, 2419-25	3	63
463	Elemental T and Y Shapes of Tree Networks of Ducts with Various Cross-Sectional Shapes. *Journal of Hydraulic Engineering*, **2009**, 135, 132-139	1.8	5
462	Science and technology as evolving flow architectures. *International Journal of Energy Research*, **2009**, 33, 112-125	4.5	15
461	Distribution of size in steam turbine power plants. *International Journal of Energy Research*, **2009**, 33, 989-998	4.5	21
460	The constructal unification of biological and geophysical design. *Physics of Life Reviews*, **2009**, 6, 85-102	2.1	55
459	Vascular materials cooled with grids and radial channels. *International Journal of Heat and Mass Transfer*, **2009**, 52, 1230-1239	4.9	19
458	Vascular structures with flow uniformity and small resistance. *International Journal of Heat and Mass Transfer*, **2009**, 52, 1761-1768	4.9	17
457	Vascularization with line-to-line trees in counterflow heat exchange. *International Journal of Heat and Mass Transfer*, **2009**, 52, 4327-4342	4.9	15
456	The transient response of vascular composites cooled with grids and radial channels. *International Journal of Heat and Mass Transfer*, **2009**, 52, 4175-4183	4.9	14
455	Constructal Design of Vascular Porous Materials and Electrokinetic Mass Transfer. *Transport in Porous Media*, **2009**, 77, 305-322	3.1	6
454	The principle that generates dissimilar patterns inside aggregates of organisms. *Physica A: Statistical Mechanics and Its Applications*, **2009**, 388, 727-731	3.3	24
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