TomÃ¡Å¡ KrÃ¡lÃ-k

List of Publications by Year
in descending order

28 papers	510 citations	840776 11 h-index	642732 23 g-index
28 all docs	28 docs citations	28 times ranked	396 citing authors

#	Article	IF	Citations
1	Strong Near-Field Enhancement of Radiative Heat Transfer between Metallic Surfaces. Physical Review Letters, 2012, 109, 224302.	7.8	151
2	Cryogenic apparatus for study of near-field heat transfer. Review of Scientific Instruments, 2011, 82, 055106.	1.3	48
3	Heat transfer in cryogenic helium gas by turbulent Rayleighâ€“BÃ©nard convection in a cylindrical cell of aspect ratio 1. New Journal of Physics, 2014, 16, 053042.	2.9	38
4	Low temperature radiative properties of materials used in cryogenics. Cryogenics, 2005, 45, 529-536.	1.7	36
5	Effect of Boundary Layers Asymmetry on Heat Transfer Efficiency in Turbulent Rayleigh-BÃ©nard Convection at Very High Rayleigh Numbers. Physical Review Letters, 2012, 109, 154301.	7.8	36
6	Method for measurement of emissivity and absorptivity of highly reflective surfaces from 20â€‰K to room temperatures. Metrologia, 2016, 53, 743-753.	1.2	31
7	Helium cryostat for experimental study of natural turbulent convection. Review of Scientific Instruments, 2010, 81, 085103.	1.3	20
8	A database of metallic materials emissivities and absorptivities for cryogenics. Cryogenics, 2019, 97, 85-99.	1.7	17
9	Optical characterization of thin films non-uniform in thickness by a multiple-wavelength reflectance method. Surface and Interface Analysis, 2002, 34, 660-663.	1.8	15
10	Reynolds number scaling in cryogenic turbulent Rayleighâ€“BÃ©nard convection in a cylindrical aspect ratio one cell. Journal of Fluid Mechanics, 2017, 832, 721-744.	3.4	14
11	Thermal conductivity of a CuCrZr alloy from 5K to room temperatures. Cryogenics, 2010, 50, 737-742.	1.7	12
12	Thermal radiative properties of a DLC coating. Cryogenics, 2008, 48, 455-457.	1.7	10
13	Effect of superconductivity on near-field radiative heat transfer. Physical Review B, 2017, 95, .	3.2	10
14	Elusive transition to the ultimate regime of turbulent Rayleigh-BÃ©nard convection. Physical Review E, 2019, 99, 011101.	2.1	10
15	Strong suppression of near-field radiative heat transfer by superconductivity in NbN. Physical Review B, 2019, 99, .	3.2	9
16	Thermal Waves and Heat Transfer Efficiency Enhancement in Harmonically Modulated Turbulent Thermal Convection. Physical Review Letters, 2022, 128, 134502.	7.8	9
17	Effect of different treatments of copper surface on its total hemispherical absorptivity bellow 77K. Cryogenics, 2007, 47, 257-261.	1.7	8
18	Black surfaces for infrared, aerospace, and cryogenic applications. Proceedings of SPIE, 2009, , .	0.8	7

#	Article	IF	Citations
19	Influence of condensed water on heat radiation absorptivity at cryogenic temperatures. Cryogenics, 2010, 50, 331-335.	1.7	5
20	Low temperature thermal radiative properties of gold coated metals. International Journal of Refrigeration, 2017, 82, 51-55.	3.4	5
21	UrbanetÂal.Reply:. Physical Review Letters, 2013, 110, 199402.	7.8	4
22	Thermal radiation in Rayleigh-BÃ©nard convection experiments. Physical Review E, 2020, 101, 043106.	2.1	4
23	Low-emittance copper-coating system using atomic-layer-deposited aluminum oxide. Thin Solid Films, 2022, 749, 139179.	1.8	4
24	Near field radiative heat transfer between macro-scale metallic surfaces at cryogenic temperatures. Cryogenics, 2021, 113, 103156.	1.7	3
25	Comments on heat transfer efficiency in cryogenic helium turbulent Rayleigh-BÃ©nard convection. Journal of Physics: Conference Series, 2011, 318, 082012.	0.4	2
26	Economical helium bath cryopump: design and testing. Vacuum, 2004, 74, 77-83.	3.5	1
27	Nanostructures for Achieving Selective Properties of a Thermophotovoltaic Emitter. Nanomaterials, 2021, 11, 2443.	4.1	1
28	Publisherâ€™s Note: Effect of Boundary Layers Asymmetry on Heat Transfer Efficiency in Turbulent Rayleigh-BÃ©nard Convection at Very High Rayleigh Numbers [Phys. Rev. Lett.109, 154301 (2012)]. Physical Review Letters, 2012, 109, .	7.8	0