# Sunil Kumar

## List of Publications by Citations

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102 2,771 31 50 g-index

121 3,154 4.4 5.18 ext. papers ext. citations avg, IF L-index

#	Paper	IF	Citations
102	Experimental Evidence of Hyperbolic Heat Conduction in Processed Meat. <i>Journal of Heat Transfer</i> , <b>1995</b> , 117, 568-573	1.8	442
101	Significance of Non-Fourier Heat Waves in Conduction. <i>Journal of Heat Transfer</i> , <b>1994</b> , 116, 221-224	1.8	113
100	Discrete-ordinates solution of short-pulsed laser transport in two-dimensional turbid media. <i>Applied Optics</i> , <b>2001</b> , 40, 3156-63	1.7	97
99	Development and comparison of models for light-pulse transport through scattering-absorbing media. <i>Applied Optics</i> , <b>1999</b> , 38, 188-96	1.7	96
98	Monte Carlo simulation and experiments of pulsed radiative transfer. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>2002</b> , 73, 159-168	2.1	77
97	Microscale Aspects of Thermal Radiation Transport and Laser Applications. <i>Advances in Heat Transfer</i> , <b>1999</b> , 33, 187-294	1.9	77
96	Allosteric Activation Dictates PRC2 Activity Independent of Its Recruitment to Chromatin. <i>Molecular Cell</i> , <b>2018</b> , 70, 422-434.e6	17.6	67
95	Dependent Absorption and Extinction of Radiation by Small Particles. <i>Journal of Heat Transfer</i> , <b>1990</b> , 112, 178-185	1.8	67
94	Three-Dimensional Discrete Ordinates Method in Transient Radiative Transfer. <i>Journal of Thermophysics and Heat Transfer</i> , <b>2002</b> , 16, 289-296	1.3	64
93	Neomycin-neomycin dimer: an all-carbohydrate scaffold with high affinity for AT-rich DNA duplexes. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 7361-75	16.4	60
92	Multidimensional Monte Carlo Simulation of Short-Pulse Laser Transport in Scattering Media. Journal of Thermophysics and Heat Transfer, <b>2000</b> , 14, 504-511	1.3	60
91	Aminoglycoside binding to Oxytricha nova telomeric DNA. <i>Biochemistry</i> , <b>2010</b> , 49, 9891-903	3.2	57
90	The Differential-Discrete-Ordinate Method for Solutions of the Equation of Radiative Transfer. Journal of Heat Transfer, <b>1990</b> , 112, 424-429	1.8	57
89	Entrance pipe flow and heat transfer for a Bingham plastic. <i>International Journal of Heat and Mass Transfer</i> , <b>1993</b> , 36, 543-552	4.9	54
88	Thermal Conductivity of Thin Metallic Films. <i>Journal of Heat Transfer</i> , <b>1994</b> , 116, 28-34	1.8	52
87	Click dimers to target HIV TAR RNA conformation. <i>Biochemistry</i> , <b>2012</b> , 51, 2331-47	3.2	50
86	Probing the recognition surface of a DNA triplex: binding studies with intercalator-neomycin conjugates. <i>Biochemistry</i> , <b>2010</b> , 49, 5540-52	3.2	46

### (2018-1997)

85	Transient Radiation Transport in Participating Media Within a Rectangular Enclosure. <i>Journal of Thermophysics and Heat Transfer</i> , <b>1997</b> , 11, 409-414	1.3	45
84	Helix Mimetics as Modulators of Albelf-Assembly. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 5744-5755	16.4	43
83	Foldamer-mediated manipulation of a pre-amyloid toxin. <i>Nature Communications</i> , <b>2016</b> , 7, 11412	17.4	43
82	Molecular recognition of single-stranded RNA: neomycin binding to poly(A). <i>FEBS Letters</i> , <b>2009</b> , 583, 2269-75	3.8	42
81	Islet amyloid-induced cell death and bilayer integrity loss share a molecular origin targetable with oligopyridylamide-based Helical mimetics. <i>Chemistry and Biology</i> , <b>2015</b> , 22, 369-78		40
80	Recognition of HIV TAR RNA by triazole linked neomycin dimers. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2011</b> , 21, 4788-92	2.9	39
79	Hyperbolic damped-wave models for transient light-pulse propagation in scattering media. <i>Applied Optics</i> , <b>1996</b> , 35, 3372-8	1.7	38
78	Hyperbolic temperature profiles for laser surface interactions. <i>Journal of Applied Physics</i> , <b>1994</b> , 76, 501	4±5 <b>9</b> 21	38
77	A foldamer approach to targeting membrane bound helical states of islet amyloid polypeptide. <i>Chemical Communications</i> , <b>2013</b> , 49, 4749-51	5.8	37
76	Recognition of HIV-TAR RNA using neomycin-benzimidazole conjugates. <i>Bioorganic and Medicinal Chemistry Letters</i> , <b>2013</b> , 23, 5689-93	2.9	36
75	Foldamer-Mediated Structural Rearrangement Attenuates AlDligomerization and Cytotoxicity. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 17098-17108	16.4	35
74	A fluorescence-based screen for ribosome binding antibiotics. <i>Analytical Biochemistry</i> , <b>2013</b> , 434, 300-7	3.1	34
73	Multivalency in the recognition and antagonism of a HIV TAR RNA-TAT assembly using an aminoglycoside benzimidazole scaffold. <i>Organic and Biomolecular Chemistry</i> , <b>2016</b> , 14, 2052-6	3.9	33
72	Crystal structure of the Homo sapiens kynureninase-3-hydroxyhippuric acid inhibitor complex: insights into the molecular basis of kynureninase substrate specificity. <i>Journal of Medicinal Chemistry</i> , <b>2009</b> , 52, 389-96	8.3	32
71	Calorimetric and spectroscopic studies of aminoglycoside binding to AT-rich DNA triple helices. <i>Biochimie</i> , <b>2010</b> , 92, 514-29	4.6	31
70	Equivalent isotropic scattering formulation for transient short-pulse radiative transfer in anisotropic scattering planar media. <i>Applied Optics</i> , <b>2000</b> , 39, 4411-7	1.7	31
69	Analysis of Combined Radiation and Convection in a Particulate-Laden Liquid Film. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , <b>1990</b> , 112, 293-300	2.3	31
68	Conformational switching within dynamic oligomers underpins toxic gain-of-function by diabetes-associated amyloid. <i>Nature Communications</i> , <b>2018</b> , 9, 1312	17.4	30

67	Peptidomimetic-Based Multidomain Targeting Offers Critical Evaluation of Alstructure and Toxic Function. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 6562-6574	16.4	28
66	Noninvasive detection of inhomogeneities in turbid media with time-resolved log-slope analysis. Journal of Quantitative Spectroscopy and Radiative Transfer, <b>2004</b> , 84, 493-500	2.1	28
65	Effective Diameter of Agglomerates for Radiative Extinction and Scattering. <i>Combustion Science and Technology</i> , <b>1989</b> , 66, 199-216	1.5	28
64	Semiconductor-superconductor hybrid electronics. <i>Cryogenics</i> , <b>1990</b> , 30, 1014-1023	1.8	27
63	Effective heat capacity of ferrofluids [Analytical approach. <i>International Journal of Thermal Sciences</i> , <b>2014</b> , 84, 267-274	4.1	26
62	Numerical modeling of two-dimensional smoldering processes. <i>Combustion and Flame</i> , <b>1993</b> , 95, 170-18	8 <b>2</b> 5.3	26
61	Direct observations of field-induced assemblies in magnetite ferrofluids. <i>Journal of Applied Physics</i> , <b>2015</b> , 117, 103907	2.5	24
60	Amphiphilic oligoamide Helix peptidomimetics inhibit islet amyloid polypeptide aggregation. <i>Tetrahedron Letters</i> , <b>2015</b> , 56, 3670-3673	2	24
59	Permeability of a fracture with cylindrical asperities. Fluid Dynamics Research, 1991, 7, 131-137	1.2	22
58	Folded small molecule manipulation of islet amyloid polypeptide. <i>Chemistry and Biology</i> , <b>2014</b> , 21, 775-	81	21
58 57	Folded small molecule manipulation of islet amyloid polypeptide. <i>Chemistry and Biology</i> , <b>2014</b> , 21, 775- Effective in-field thermal conductivity of ferrofluids. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 043902	2.5	21 18
57	Effective in-field thermal conductivity of ferrofluids. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 043902  Influence of linker length and composition on enzymatic activity and ribosomal binding of	2.5	18
57 56	Effective in-field thermal conductivity of ferrofluids. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 043902  Influence of linker length and composition on enzymatic activity and ribosomal binding of neomycin dimers. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 3899-905  Designed Cell-Penetrating Peptide Inhibitors of Amyloid-beta Aggregation and Cytotoxicity. <i>Cell</i>	2.5 5·9	18
57 56 55	Effective in-field thermal conductivity of ferrofluids. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 043902  Influence of linker length and composition on enzymatic activity and ribosomal binding of neomycin dimers. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 3899-905  Designed Cell-Penetrating Peptide Inhibitors of Amyloid-beta Aggregation and Cytotoxicity. <i>Cell Reports Physical Science</i> , <b>2020</b> , 1, 100014  Positive Pressure Ventilation for fighting wind-driven high-rise fires: Simulation-based analysis and	2.5 5.9 6.1	18 18 16
<ul><li>57</li><li>56</li><li>55</li><li>54</li></ul>	Effective in-field thermal conductivity of ferrofluids. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 043902  Influence of linker length and composition on enzymatic activity and ribosomal binding of neomycin dimers. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 3899-905  Designed Cell-Penetrating Peptide Inhibitors of Amyloid-beta Aggregation and Cytotoxicity. <i>Cell Reports Physical Science</i> , <b>2020</b> , 1, 100014  Positive Pressure Ventilation for fighting wind-driven high-rise fires: Simulation-based analysis and optimization. <i>Fire Safety Journal</i> , <b>2017</b> , 87, 57-64  Substituent effects on the reaction of beta-benzoylalanines with Pseudomonas fluorescens	2.5 5.9 6.1 3.3	18 18 16
<ul><li>57</li><li>56</li><li>55</li><li>54</li><li>53</li></ul>	Effective in-field thermal conductivity of ferrofluids. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 043902  Influence of linker length and composition on enzymatic activity and ribosomal binding of neomycin dimers. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2015</b> , 59, 3899-905  Designed Cell-Penetrating Peptide Inhibitors of Amyloid-beta Aggregation and Cytotoxicity. <i>Cell Reports Physical Science</i> , <b>2020</b> , 1, 100014  Positive Pressure Ventilation for fighting wind-driven high-rise fires: Simulation-based analysis and optimization. <i>Fire Safety Journal</i> , <b>2017</b> , 87, 57-64  Substituent effects on the reaction of beta-benzoylalanines with Pseudomonas fluorescens kynureninase. <i>Biochemistry</i> , <b>2010</b> , 49, 7913-9  Photochemical and Photothermal Model for Pulsed-Laser Ablation. <i>Journal of Thermophysics and</i>	2.5 5.9 6.1 3.3	18 18 16 15

## (1986-2015)

49	Influence of linker length in shape recognition of B* DNA by dimeric aminoglycosides. <i>Bioorganic and Medicinal Chemistry</i> , <b>2015</b> , 23, 3105-9	3.4	12
48	Characterization of ribosomal binding and antibacterial activities using two orthogonal high-throughput screens. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2013</b> , 57, 4717-26	5.9	12
47	Dependent Scattering Properties of Woven Fibrous Insulations for Normal Incidence. <i>Journal of Heat Transfer</i> , <b>1995</b> , 117, 160-166	1.8	12
46	Radiative transport in a planar medium exposed to azimuthally unsymmetric incident radiation. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , <b>1986</b> , 35, 187-212	2.1	11
45	Effect of rounding corners on optical resonances in single-mode sharp-cornered microresonators. <i>Optics Letters</i> , <b>2016</b> , 41, 878-81	3	10
44	Helix-Mimetic Foldamers for Targeting HIV-1 TAR RNA. <i>Chemistry - A European Journal</i> , <b>2019</b> , 25, 7265-	7 <b>2.6</b> 9	8
43	Thermal Analysis of the Hot Dip-Coating Process. <i>Journal of Heat Transfer</i> , <b>1993</b> , 115, 453-460	1.8	8
42	Radiative transfer in thermal insulations of hollow and coated fibers. <i>Journal of Thermophysics and Heat Transfer</i> , <b>1987</b> , 1, 289-295	1.3	8
41	Flow field characteristics of a supersonic jet influenced by downstream microjet fluidic injection. <i>Aerospace Science and Technology</i> , <b>2019</b> , 93, 105281	4.9	7
40	Improvement of Positive Pressure Ventilation by optimizing stairwell door opening area. <i>Fire Safety Journal</i> , <b>2017</b> , 92, 195-198	3.3	7
39	Laser transport through thin scattering layers. Applied Optics, 2010, 49, 358-68	0.2	7
38	Optical sensor for temperature measurement using bimetallic concept. <i>Optical Fiber Technology</i> , <b>2011</b> , 17, 315-320	2.4	6
37	Optimization of a Single-Cell Solid-Oxide Fuel Cell Using Computational Fluid Dynamics. <i>Journal of Fuel Cell Science and Technology</i> , <b>2011</b> , 8,		6
36	Interference effects on scattering by parallel fibers at normal incidence. <i>Journal of Thermophysics and Heat Transfer</i> , <b>1990</b> , 4, 305-310	1.3	6
35	Enhanced Intracellular Uptake of Indocyanine Green by Polymeric Nanoparticulate Delivery Systems. <i>Journal of Biomedical Nanotechnology</i> , <b>2005</b> , 1, 168-175	4	6
34	Use of downstream fluid injection to reduce subsonic jet noise. <i>International Journal of Aeroacoustics</i> , <b>2019</b> , 18, 554-574	2.1	5
33	Shape readout of AT-rich DNA by carbohydrates. <i>Biopolymers</i> , <b>2014</b> , 101, 720-32	2.2	5
32	On computing radiative heat flux distributions using the method. <i>International Journal of Heat and Mass Transfer</i> , <b>1986</b> , 29, 635-637	4.9	5

31	Protein mimetic amyloid inhibitor potently abrogates cancer-associated mutant p53 aggregation and restores tumor suppressor function. <i>Nature Communications</i> , <b>2021</b> , 12, 3962	17.4	5
30	Assessment of web-based interactive game system methodology for dissemination and diffusion to improve firefighter safety and wellness. <i>Fire Safety Journal</i> , <b>2015</b> , 72, 59-67	3.3	4
29	Parametric aspects of electronphonon temperature model for short pulse laser interactions with thin metallic films. <i>Journal of Applied Physics</i> , <b>1996</b> , 80, 675-680	2.5	4
28	Sub-stoichiometric inhibition of IAPP aggregation: a peptidomimetic approach to anti-amyloid agents. <i>RSC Chemical Biology</i> , <b>2020</b> , 1, 225-232	3	4
27	Teaching an old scaffold new recognition tricks: oligopyrrolamide antagonists of IAPP aggregation. <i>Organic and Biomolecular Chemistry</i> , <b>2018</b> , 16, 733-741	3.9	4
26	Interaction of Vortex with Bow Shock Wave: Computational Model, Experimental Validation, Enhanced Mixing. <i>AIAA Journal</i> , <b>2018</b> , 56, 3071-3085	2.1	3
25	Multivalent Amino Sugars to Recognize Different TAR RNA Conformations. <i>MedChemComm</i> , <b>2014</b> , 5, 1235-1246	5	3
24	Experimental Modeling of Circular Hydraulic Jump by the Impingement of a Water Column on a Horizontal Disk. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>1999</b> , 121, 86-92	2.1	3
23	Allosteric activation dictates PRC2 activity independent of its recruitment to chromatin		3
22	Optimization of Positive Pressure Ventiliation Tactic for Wind Driven High Rise Fires 2011,		2
21	Fuel Cells as an Alternative to Cold Ironing. Journal of Fuel Cell Science and Technology, 2009, 6,		2
20	Experiments on dependent scattering of radiation 1987,		2
19	Stability of a free convection density-extremum flow in a porous medium. <i>International Journal of Heat and Mass Transfer</i> , <b>1987</b> , 30, 351-361	4.9	2
18	Experimental and Numerical Studies of Short Pulse Propagation in Model Systems 2002,		2
17	Directionally Targeted Jet Noise Suppression: Benefits of Asymmetric Downstream Fluidic Injection <b>2018</b> ,		2
16	A tenuous, collisional atmosphere on Callisto. <i>Icarus</i> , <b>2021</b> , 368, 114597	3.8	2
15	Temperature Effects on Optical Resonances in Single-Mode Circular Ring and Squircular Resonators <b>2017</b> ,		1
14	Jet Noise Reduction by Downstream Fluidic Injection: Effect of Injection Pressure Ratio and Number of Injection Ports <b>2018</b> ,		1

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13	Study of Shock Wave/Vortex Interaction for Supersonic Mixing Enhancement 2017,		1
12	Directional Noise Reduction via Asymmetric Downstream Fluidic Injection 2017,		1
11	Modeling of Ultrashort Light Pulse Propagation in Light Scattering Media. <i>Nippon Kikai Gakkai Ronbunshu, C Hen/Transactions of the Japan Society of Mechanical Engineers, Part C</i> , <b>1997</b> , 63, 895-900		1
10	Optical Resonance in Dielectric Micro-Sphere for Temperature Measurement <b>2007</b> , 303		1
9	An Optical Fiber Biosensor for Monitoring Drug Delivery <b>2007</b> , 155		1
8	Modification of Results From Computational-Fluid-Dynamics Simulations of Single-Cell Solid-Oxide Fuel Cells to Estimate Multicell Stack Performance. <i>Journal of Fuel Cell Science and Technology</i> , <b>2011</b> , 8,		1
7	Effect of rotation on quality factor of single-mode optical resonances in round-cornered square-shaped resonators <b>2018</b> ,		1
6	Design optimization of a single-mode microring resonator for label-free detection of biomarkers within a tunable spectral range of 2 nm <b>2018</b> ,		1
5	Coupling and Optical Analysis of a Round-Cornered Square-Shaped Microresonator. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 8659	2.6	О
4	Foldamers reveal and validate therapeutic targets associated with toxic synuclein self-assembly <i>Nature Communications</i> , <b>2022</b> , 13, 2273	17.4	О
3	Spatial sensitivity profiles by time-resolved fluorescence Monte Carlo simulation <b>2003</b> , 4955, 581		
2	Heat Transfer in Ultrafast Laser Tissue Welding <b>2005</b> , 287		
1	Positive Pressurization and Ventilation for Fighting Fires in High-Rise Structures with Multiple Stairwells. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1107, 042037	0.3	