

# Vineet Veer Tyagi

## List of Publications by Year in descending order

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71  
papers

7,367  
citations

218381

26  
h-index

118652

62  
g-index

72  
all docs

72  
docs citations

72  
times ranked

5767  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review on thermal energy storage with phase change materials and applications. <i>Renewable and Sustainable Energy Reviews</i> , 2009, 13, 318-345.	8.2	4,318
2	Developments in organic solid-liquid phase change materials and their applications in thermal energy storage. <i>Energy Conversion and Management</i> , 2015, 95, 193-228.	4.4	597
3	Novel approaches and recent developments on potential applications of phase change materials in solar energy. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 82, 281-323.	8.2	321
4	Thermal properties and heat storage analysis of palmitic acid-TiO <sub>2</sub> composite as nano-enhanced organic phase change material (NEOPCM). <i>Applied Thermal Engineering</i> , 2016, 99, 1254-1262.	3.0	194
5	Two side serpentine flow based photovoltaic-thermal-phase change materials (PVT-PCM) system: Energy, exergy and economic analysis. <i>Renewable Energy</i> , 2019, 136, 1320-1336.	4.3	166
6	A comprehensive review on development of eutectic organic phase change materials and their composites for low and medium range thermal energy storage applications. <i>Solar Energy Materials and Solar Cells</i> , 2021, 223, 110955.	3.0	152
7	A comprehensive review on phase change materials for heat storage applications: Development, characterization, thermal and chemical stability. <i>Solar Energy Materials and Solar Cells</i> , 2022, 234, 111392.	3.0	98
8	Thermal performance of phase change material integrated heat pipe evacuated tube solar collector system: An experimental assessment. <i>Energy Conversion and Management</i> , 2020, 203, 112205.	4.4	96
9	A novel polyaniline (PANI)/ paraffin wax nano composite phase change material: Superior transition heat storage capacity, thermal conductivity and thermal reliability. <i>Solar Energy</i> , 2020, 204, 448-458.	2.9	95
10	Concentrated photovoltaic thermal systems: A component-by-component view on the developments in the design, heat transfer medium and applications. <i>Energy Conversion and Management</i> , 2019, 186, 15-41.	4.4	86
11	Preparation, characterization, thermal energy storage properties and temperature control performance of form-stabilized sepiolite based composite phase change materials. <i>Energy and Buildings</i> , 2019, 188-189, 111-119.	3.1	78
12	Microalgal cultivation for value-added products: a critical enviro-economical assessment. <i>3 Biotech</i> , 2017, 7, 243.	1.1	77
13	Microbial fuel cells: a sustainable solution for bioelectricity generation and wastewater treatment. <i>Biofuels</i> , 2019, 10, 11-31.	1.4	77
14	Experimental performance evaluation of a novel designed phase change material integrated manifold heat pipe evacuated tube solar collector system. <i>Energy Conversion and Management</i> , 2019, 198, 111896.	4.4	68
15	Long-term thermal and chemical reliability study of different organic phase change materials for thermal energy storage applications. <i>Journal of Thermal Analysis and Calorimetry</i> , 2016, 124, 1357-1366.	2.0	67
16	Phase change materials and nano-enhanced phase change materials for thermal energy storage in photovoltaic thermal systems: A futuristic approach and its technical challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 133, 110341.	8.2	67
17	A critical review on factors influencing fermentative hydrogen production. <i>Frontiers in Bioscience - Landmark</i> , 2017, 22, 1195-1220.	3.0	45
18	Capric-stearic acid mixture impregnated carbonized waste sugar beet pulp as leak-resistive composite phase change material with effective thermal conductivity and thermal energy storage performance. <i>Energy</i> , 2022, 247, 123501.	4.5	44

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19	Thermal conductivity, reliability, and stability assessment of phase change material (PCM) doped with functionalized multi-wall carbon nanotubes (FMWCNTs). <i>Journal of Energy Storage</i> , 2022, 50, 104676.	3.9	40
20	Phase change materials integrated solar desalination system: An innovative approach for sustainable and clean water production and storage. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 165, 112611.	8.2	37
21	Thermodynamics and performance evaluation of encapsulated PCM-based energy storage systems for heating application in building. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014, 115, 915-924.	2.0	36
22	Carbonized waste hazelnut wood-based shape-stable composite phase change materials for thermal management implementations. <i>International Journal of Energy Research</i> , 2021, 45, 10271-10284.	2.2	34
23	Form-stabilized Polyethylene Glycol/Palygorskite Composite Phase Change Material: Thermal Energy Storage Properties, Cycling Stability, and Thermal Durability. <i>Polymer Engineering and Science</i> , 2020, 60, 909-916.	1.5	32
24	Advancements in PV-thermal systems with and without phase change materials as a sustainable energy solution: energy, exergy and exergoeconomic (3E) analytic approach. <i>Sustainable Energy and Fuels</i> , 2020, 4, 4956-4987.	2.5	30
25	Nano additive enhanced salt hydrate phase change materials for thermal energy storage. <i>International Materials Reviews</i> , 2023, 68, 140-183.	9.4	29
26	Exergetic analysis and parametric study of multi-crystalline solar photovoltaic system at a typical climatic zone. <i>Clean Technologies and Environmental Policy</i> , 2013, 15, 333-343.	2.1	28
27	Development and characterization of form-stable porous $\text{TiO}_2$ /tetradecanoic acid based composite PCM with long-term stability as solar thermal energy storage material. <i>International Journal of Energy Research</i> , 2020, 44, 10044-10057.	2.2	28
28	Recent progresses and challenges in cooling techniques of concentrated photovoltaic thermal system: A review with special treatment on phase change materials (PCMs) based cooling. <i>Solar Energy Materials and Solar Cells</i> , 2022, 241, 111739.	3.0	27
29	Algal-based biofuel generation through flue gas and wastewater utilization: a sustainable prospective approach. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1419-1442.	2.9	26
30	Integrated approach for textile industry wastewater for efficient hydrogen production and treatment through solar PV electrolysis. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 25768-25782.	3.8	26
31	Energy, exergy, exergoeconomic and enviroeconomic (4-E) assessment of solar water heater with/without phase change material for building and other applications: A comprehensive review. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 45, 101139.	1.7	26
32	COVID-19 and waste management in Indian scenario: challenges and possible solutions. <i>Environmental Science and Pollution Research</i> , 2021, 28, 52702-52723.	2.7	25
33	Thermal and exergoeconomic analysis of a dairy food processing plant. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 136, 1365-1382.	2.0	23
34	Improved thermal energy storage behavior of polyethylene glycol-based NEOPCM containing aluminum oxide nanoparticles for solar thermal applications. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 1881-1892.	2.0	22
35	Effects of Thermal Cycling Operation on Solar Thermal Energy Storage, Morphology, Chemical/Crystalline Structure, and Thermal Degradation Properties of Some Fatty Alcohols as Organic PCMs. <i>Energy &amp; Fuels</i> , 2020, 34, 9011-9019.	2.5	21
36	Optimization of nutrients from wastewater using RSM for augmentation of <i>Chlorella pyrenoidosa</i> with enhanced lipid productivity, FAME content, and its quality assessment using fuel quality index. <i>Biomass Conversion and Biorefinery</i> , 2020, 10, 495-512.	2.9	19

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37	Experimental investigation for heat and flow characteristics of solar air heater having symmetrical gaps in multiple-arc rib pattern as roughness elements. <i>Experimental Heat Transfer</i> , 2022, 35, 466-483.	2.3	18
38	Assessment of different pretreatment technologies for efficient bioconversion of lignocellulose to ethanol. <i>Frontiers in Bioscience - Scholar</i> , 2018, 10, 350-371.	0.8	17
39	Temperature dependent morphological changes on algal growth and cell surface with dairy industry wastewater: an experimental investigation. <i>3 Biotech</i> , 2020, 10, 24.	1.1	17
40	Impact assessment on water quality in the polluted stretch using a cluster analysis during pre- and COVID-19 lockdown of Tawi river basin, Jammu, North India: an environment resiliency. <i>Energy, Ecology and Environment</i> , 2022, 7, 461-472.	1.9	17
41	Progressive Trends in Bio-Fuel Policies in India: Targets and Implementation Strategy. <i>Biofuels</i> , 2019, 10, 155-166.	1.4	14
42	Optimization of the renewable-energy-based micro-grid for rural electrification in northern region of India. <i>Clean Technologies and Environmental Policy</i> , 2020, 22, 579-590.	2.1	14
43	Utilization of <i>Chlorella pyrenoidosa</i> for Remediation of Common Effluent Treatment Plant Wastewater in Coupling with Co-relational Study: An Experimental Approach. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2022, 108, 507-517.	1.3	10
44	Impact of pH on Pollutational Parameters of Textile Industry Wastewater with Use of <i>Chlorella pyrenoidosa</i> at Labâ€šScale: A Green Approach. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2022, 108, 485-490.	1.3	7
45	Advancement in solar still integration with phase change materials-based TES systems and nanofluid for water and wastewater treatment applications. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 9181-9227.	2.0	7
46	Experimental Investigations on Thermal Properties of Copper (II) Oxide Nanoparticles Enhanced Inorganic Phase Change Materials for Solar Thermal Energy Storage Applications. , 2022, , .		7
47	Adsorptive behavior of free and immobilized <i>Chlorella pyrenoidosa</i> for decolorization. <i>Biomass Conversion and Biorefinery</i> , 2020, , 1.	2.9	6
48	Thermal Energy Storage in Phase Change Material Integrated Solar Collectors for Air Heating Application. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1127, 012006.	0.3	6
49	Energetic and exergetic assessment of two- and three-stage spray drying units for milk processing industry. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021, 43, 1.	0.8	6
50	Experimental investigation of designed solar parabolic concentrator based desalination system for textile industry wastewater treatment. <i>Energy and Environment</i> , 2022, 33, 870-896.	2.7	6
51	Effect of graphene and its derivatives on thermo-mechanical properties of phase change materials and its applications: a comprehensive review. <i>Frontiers in Energy</i> , 2022, 16, 150-186.	1.2	6
52	Metal Oxide Nanoparticle Dispersed-Polyethylene Glycol: Thermal Conductivity and Thermal Energy Storage Properties. <i>Energy &amp; Fuels</i> , 2022, 36, 2821-2832.	2.5	6
53	Experiment-based thermodynamic feasibility with co-digestion of nutrient-rich biowaste materials for biogas production. <i>3 Biotech</i> , 2018, 8, 34.	1.1	5
54	Thermodynamic and techno-economic analysis of heat pipe ETC water heating system for Indian composite climate. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 1395-1407.	2.0	5

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55	Emission reduction and fuel-saving potentials in jaggery industry via cleaner combustion. International Journal of Ambient Energy, 2022, 43, 4728-4743.	1.4	5
56	Valorization of bio-waste material: future dimensions for path towards sustainability. Environmental Sustainability, 2021, 4, 199-200.	1.4	5
57	Thermal conductivity and Thermal properties enhancement of Paraffin/ Titanium Oxide based Nano enhanced Phase change materials for Energy storage. , 2022, , .		5
58	Optimization of flocculation efficiency of Chlorella pyrenoidosa with CaCl <sub>2</sub> using the Box-Behnken design of response surface methodology: A cost effective statistical investigation. Biomass Conversion and Biorefinery, 2024, 14, 3261-3273.	2.9	5
59	Thermal energy storage properties and lab-scale thermal performance in cementitious plaster of composite phase change material for energy efficiency of buildings. Environmental Progress and Sustainable Energy, 2020, 39, e13455.	1.3	4
60	Comparative enviro-economic assessment and thermal optimization of two distinctly designed and experimentally validated PV/T collectors. Journal of Thermal Analysis and Calorimetry, 0, , 1.	2.0	3
61	Thermal energy storage characteristics of polyacrylic acid/dodecanol/carbon nanofiber composites as thermal conductive <scp>shape-stabilized</scp> composite phase change materials. International Journal of Energy Research, 2022, 46, 20873-20885.	2.2	3
62	Kinetic assessment of aerobic composting of flower waste generated from temple in Jammu, India: a lab-scale experimental study. Environmental Sustainability, 2021, 4, 393-400.	1.4	2
63	Comparative exergoeconomic analysis of single, two and three stage spray drying systems. Journal of Thermal Analysis and Calorimetry, 2022, 147, 8947-8968.	2.0	2
64	Impact of Pollutant Load from Textile Dyeing Industry Wastewater on Biometric Growth Profile of Vigna radiata. Bulletin of Environmental Contamination and Toxicology, 2022, , 1.	1.3	2
65	Response surface methodology-based extraction optimization with application of ZrCl <sub>4</sub> as novel quenching agent for enhancement of bio-oil yield from Jatropha curcas and Chlorella pyrenoidosa. Biomass Conversion and Biorefinery, 0, , 1.	2.9	1
66	Experimental and computational investigation of waste heat recovery from combustion device for household purposes. International Journal of Energy and Environmental Engineering, 2022, 13, 353-364.	1.3	1
67	Year round performance and parametric study of thin film solar photovoltaic system. , 2013, , .		0
68	Numerical simulation and exergetic optimization of a PV/T integrated dual expansion heat pump. Journal of Thermal Analysis and Calorimetry, 0, , 1.	2.0	0
69	Editorial: Thematic issue "Bio-based materials for biorefineries: innovative processes and concepts" Biomass Conversion and Biorefinery, 0, , 1.	2.9	0
70	Estimation of thermodynamic and enviroeconomic characteristics of khoa (milk food) production unit. Environment, Development and Sustainability, 0, , 1.	2.7	0
71	Biopolymer-Based Nanocomposites and Water Treatment: A Global Outlook. ACS Symposium Series, 0, , 25-42.	0.5	0