

Riaz Hussain

List of Publications by Year in descending order

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49
papers

2,008
citations

201385

27
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243296

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49
times ranked

377
citing authors

#	ARTICLE	IF	CITATIONS
1	Designing Three-dimensional (3D) Non-Fullerene Small Molecule Acceptors with Efficient Photovoltaic Parameters. <i>ChemistrySelect</i> , 2018, 3, 12797-12804.	0.7	119
2	Adsorption of Phosgene Gas on Pristine and Copper-Decorated B ₁₂ N ₁₂ Nanocages: A Comparative DFT Study. <i>ACS Omega</i> , 2020, 5, 7641-7650.	1.6	114
3	In Silico Modeling of New Y-Series-Based Near-Infrared Sensitive Non-Fullerene Acceptors for Efficient Organic Solar Cells. <i>ACS Omega</i> , 2020, 5, 24125-24137.	1.6	103
4	Designing indenothiophene-based acceptor materials with efficient photovoltaic parameters for fullerene-free organic solar cells. <i>Journal of Molecular Modeling</i> , 2020, 26, 137.	0.8	97
5	Molecular engineering of A ² CA ² A configured small molecular acceptors (SMAs) with promising photovoltaic properties for high-efficiency fullerene-free organic solar cells. <i>Optical and Quantum Electronics</i> , 2020, 52, 1.	1.5	96
6	Enhancement in Photovoltaic Properties of N,N'-diethylaniline based Donor Materials by Bridging Core Modifications for Efficient Solar Cells. <i>ChemistrySelect</i> , 2020, 5, 5022-5034.	0.7	95
7	Efficient designing of triphenylamine-based hole transport materials with outstanding photovoltaic characteristics for organic solar cells. <i>Journal of Materials Science</i> , 2021, 56, 5113-5131.	1.7	86
8	Designing spirobifullerene core based three-dimensional cross shape acceptor materials with promising photovoltaic properties for high-efficiency organic solar cells. <i>International Journal of Quantum Chemistry</i> , 2020, 120, e26377.	1.0	84
9	First theoretical framework of Z-shaped acceptor materials with fused-chrysene core for high performance organic solar cells. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 245, 118938.	2.0	84
10	NLO potential exploration for A heterocyclic organic compounds by incorporation of various linkers and acceptor units. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103295.	2.3	72
11	Designing Novel Zn-Decorated Inorganic B ₁₂ P ₁₂ Nanoclusters with Promising Electronic Properties: A Step Forward toward Efficient CO ₂ Sensing Materials. <i>ACS Omega</i> , 2020, 5, 15547-15556.	1.6	71
12	Designing of near-infrared sensitive asymmetric small molecular donors for high-efficiency organic solar cells. <i>Journal of Theoretical and Computational Chemistry</i> , 2020, 19, 2050034.	1.8	67
13	Designing Triphenylamine-Configured Donor Materials with Promising Photovoltaic Properties for Highly Efficient Organic Solar Cells. <i>ChemistrySelect</i> , 2020, 5, 7358-7369.	0.7	67
14	Novel W-Shaped Oxygen Heterocycle-Fused Fluorene-Based Non-Fullerene Acceptors: First Theoretical Framework for Designing Environment-Friendly Organic Solar Cells. <i>Energy & Fuels</i> , 2021, 35, 12436-12450.	2.5	67
15	Quantum chemical design of near-infrared sensitive fused ring electron acceptors containing selenophene as a bridge for high-performance organic solar cells. <i>Journal of Physical Organic Chemistry</i> , 2021, 34, e4204.	0.9	58
16	End-capped engineering of truxene core based acceptor materials for high performance organic solar cells: theoretical understanding and prediction. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	50
17	Enhancement in the Photovoltaic Properties of Hole Transport Materials by End-Capped Donor Modifications for Solar Cell Applications. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 597-610.	1.0	49
18	Designing of U-shaped acceptor molecules for indoor and outdoor organic solar cell applications. <i>Journal of Physical Organic Chemistry</i> , 2021, 34, e4210.	0.9	48

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19	Zinc-Doped Boron Phosphide Nanocluster as Efficient Sensor for SO ₂ . Journal of Chemistry, 2020, 2020, 1-12.	0.9	45
20	Structural modulation of π -conjugated linkers in D π -A dyes based on triphenylamine dicyanovinylene framework to explore the NLO properties. Royal Society Open Science, 2021, 8, 210570.	1.1	45
21	End-Capped Molecular Engineering of S-Shaped Hepta-Ring-Containing Fullerene-Free Acceptor Molecules with Remarkable Photovoltaic Characteristics for Highly Efficient Organic Solar Cells. Energy Technology, 2021, 9, 2001090.	1.8	39
22	Banana-Shaped Nonfullerene Acceptor Molecules for Highly Stable and Efficient Organic Solar Cells. Energy & Fuels, 2021, 35, 11496-11506.	2.5	37
23	Efficient Cu Decorated Inorganic B ₁₂ P ₁₂ Nanoclusters for Sensing Toxic COCl ₂ Gas: A Detailed DFT Study. Journal of Computational Biophysics and Chemistry, 2021, 20, 85-97.	1.0	36
24	Role of acceptor guests in tuning optoelectronic properties of benzothiadiazole core based non-fullerene acceptors for high-performance bulk-heterojunction organic solar cells. Journal of Molecular Modeling, 2021, 27, 226.	0.8	34
25	A Theoretical Framework of Zinc-Decorated Inorganic Mg ₁₂ O ₁₂ Nanoclusters for Efficient COCl ₂ Adsorption: A Step Forward toward the Development of COCl ₂ Sensing Materials. ACS Omega, 2021, 6, 19435-19444.	1.6	30
26	Ab Initio Study of Two-Dimensional Cross-Shaped Non-Fullerene Acceptors for Efficient Organic Solar Cells. ACS Omega, 2022, 7, 10638-10648.	1.6	30
27	Coordination behavior, structural, statistical and theoretical investigation of biologically active metal-based isatin compounds. Chemical Papers, 2022, 76, 3705-3727.	1.0	28
28	Efficient designing of half-moon-shaped chalcogen heterocycles as non-fullerene acceptors for organic solar cells. Journal of Molecular Modeling, 2022, 28, 125.	0.8	28
29	Butterfly-shaped hole transport materials with outstanding photovoltaic properties for organic solar cells. Optical and Quantum Electronics, 2021, 53, 1.	1.5	26
30	In Silico Designing of Mg ₁₂ O ₁₂ Nanoclusters with a Late Transition Metal for NO ₂ Adsorption: An Efficient Approach toward the Development of NO ₂ Sensing Materials. ACS Omega, 2021, 6, 14191-14199.	1.6	23
31	Key Electronic, Linear and Nonlinear Optical Properties of Designed Disubstituted Quinoline with Carbazole Compounds. Molecules, 2021, 26, 2760.	1.7	23
32	Designing and Encapsulation of Inorganic Al ₁₂ N ₁₂ Nanoclusters with Be, Mg, and Ca Metals for Efficient Hydrogen Adsorption: A Step Forward Towards Hydrogen Storage Materials. Journal of Computational Biophysics and Chemistry, 2021, 20, 687-705.	1.0	19
33	Novel Star-Shaped Benzotriindole-Based Nonfullerene Donor Materials: Toward the Development of Promising Photovoltaic Compounds for High-Performance Organic Solar Cells. Energy Technology, 2022, 10, .	1.8	18
34	Fabrication of Bimetallic Cu-Ag Nanoparticle-Decorated Poly(cyclotriphosphazene- <i>i>coc</i> -4,4 ² -sulfonyldiphenol) and Its Enhanced Catalytic Activity for the Reduction of 4-Nitrophenol. ACS Omega, 2022, 7, 7096-7102.	1.6	18
35	Exploration of second and third order nonlinear optical properties for theoretical framework of organic D π -A type compounds. Optical and Quantum Electronics, 2021, 53, 1.	1.5	15
36	Deciphering the Role of Alkali Metals (Li, Na, K) Doping for Triggering Nonlinear Optical (NLO) Properties of T-Graphene Quantum Dots: Toward the Development of Giant NLO Response Materials. ACS Omega, 2022, 7, 24396-24414.	1.6	15

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37	Computational engineering to enhance the photovoltaic by $\text{end}^{\text{capped}}$ and bridging core alterations: Empowering the future with solar energy through synergistic effect in D^{A} materials. International Journal of Quantum Chemistry, 2022, 122, e26821.	1.0	14
38	Physical-organic aspects along with linear and nonlinear optical properties of benzene sulfonamide compounds: In silico analysis. Journal of Physical Organic Chemistry, 2022, 35, .	0.9	13
39	The potential role of dietary plant ingredients against mammary cancer: a comprehensive review. Critical Reviews in Food Science and Nutrition, 2022, 62, 2580-2605.	5.4	11
40	Traffic and Industry-Related Air Pollution Exposure Assessment in an Asian Megacity. Clean - Soil, Air, Water, 2018, 46, 1600773.	0.7	10
41	Nonfullerene Near-Infrared Sensitive Acceptors $\text{Octacyclic Naphtho}[1,2\text{-}b:5,6\text{-}b]$ Dithiophene Core for Organic Solar Cell Applications: <i>In Silico</i> Molecular Engineering. ACS Omega, 2022, 7, 16716-16727.	1.6	8
42	First example of N-shaped dipyrrolo[2,3- $b:2^{\text{e}},3^{\text{e}}$]pyrazine-2,6(1H,5H)-dione based small acceptor materials: Role of cyano (N) free guest acceptors for developing environmental friendly organic solar cells. European Physical Journal Plus, 2022, 137, .	1.2	4
43	Density functional theory, molecular docking and bioassay studies on (S)-2-hydroxy-N-(2S,3S,4R,E)-1,3,4	1.4	3
44	Coumaronochromone as antibacterial and carbonic anhydrase inhibitors from <i>Aerva persica</i> (Burm.f.) Merr.: experimental and first-principles approaches. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 2021, 76, 71-78.	0.6	3
45	<i>Digera muricata</i> (L.) Mart. mediated synthesis of antimicrobial and enzymatic inhibitory zinc oxide bionanoparticles. Green Processing and Synthesis, 2021, 10, 476-484.	1.3	2
46	Novel quad-rotor-shaped photovoltaic materials: first example of fused-ring non-fullerene acceptors with proficient photovoltaic properties for high-performance solar cells. Journal of Molecular Modeling, 2022, 28, 18.	0.8	2
47	Thermal decomposition of syn- and anti-dihydropyrenes; functional group-dependent decomposition pathway. Journal of Molecular Modeling, 2019, 25, 215.	0.8	1
48	Meteloxetin (1) Novel Phenolic Amino-Oxetane Cholinesterase Inhibitors from <i>Datura metel</i> Linn and First-Principle Investigations. Arabian Journal for Science and Engineering, 2021, 46, 5681-5690.	1.7	1
49	A Validated Non-compendial Method for Determination of Haemodialysis Concentrate TM s Contents and its Comparison with Compendial Method: Application of ISO 13958:2014 Standard. Current Pharmaceutical Analysis, 2021, 17, 1240-1248.	0.3	0