Ramesh Jasti

List of Publications by Year
in descending order

76 papers	6,421 citations	61984 43 h-index	71685 76 g-index
83 all docs	83 docs citations	83 times ranked	2769 citing authors

#	Article	IF	Citations
1	Synthesis, Characterization, and Theory of [9]-, [12]-, and [18]Cycloparaphenylene: Carbon Nanohoop Structures. Journal of the American Chemical Society, 2008, 130, 17646-17647.	13.7	812
2	The dynamic, size-dependent properties of [5]â€“[12]cycloparaphenylenes. Chemical Society Reviews, 2015, 44, 6401-6410.	38.1	347
3	Gram-scale synthesis and crystal structures of [8]- and [10]CPP, and the solid-state structure of C60@[10]CPP. Chemical Science, 2012, 3, 3018.	7.4	302
4	Synthesis, Characterization, and Crystal Structure of [6]Cycloparaphenylene. Angewandte Chemie - International Edition, 2012, 51, 2474-2476.	13.8	273
5	Syntheses of the Smallest Carbon Nanohoops and the Emergence of Unique Physical Phenomena. Accounts of Chemical Research, 2015, 48, 557-566.	15.6	257
6	Selective Synthesis of Strained [7]Cycloparaphenylene: An Orange-Emitting Fluorophore. Journal of the American Chemical Society, 2011, 133, 15800-15802.	13.7	236
7	Efficient room-temperature synthesis of a highly strained carbon nanohoop fragment of buckminsterfullerene. Nature Chemistry, 2014, 6, 404-408.	13.6	233
8	The Monolayer Thickness Dependence of Quantized Double-Layer Capacitances of Monolayer-Protected Gold Clusters. Analytical Chemistry, 1999, 71, 3703-3711.	6.5	224
9	Progress and challenges for the bottom-up synthesis of carbon nanotubes with discrete chirality. Chemical Physics Letters, 2010, 494, 1-7.	2.6	213
10	Emerging applications of carbon nanohoops. Nature Reviews Chemistry, 2019, 3, 672-686.	30.2	193
11	Selective Syntheses of [7]â€“[12]Cycloparaphenylenes Using Orthogonal Suzukiâ€“Miyaura Cross-Coupling Reactions. Journal of Organic Chemistry, 2012, 77, 6624-6628.	3.2	180
12	Bending Benzene: Syntheses of [<i>n</i>]Cycloparaphenylenes. Journal of Organic Chemistry, 2012, 77, 10473-10478.	3.2	144
13	Self-Trapping of Excitons, Violation of Condon Approximation, and Efficient Fluorescence in Conjugated Cycloparaphenylenes. Nano Letters, 2014, 14, 6539-6546.	9.1	142
14	Racemization in Prins Cyclization Reactions. Journal of the American Chemical Society, 2006, 128, 13640-13648.	13.7	119
15	Axial-Selective Prins Cyclizations by Solvolysis of Î±-Bromo Ethers. Journal of the American Chemical Society, 2004, 126, 9904-9905.	13.7	116
16	Synthesis, Properties, and Design Principles of Donorâ€“Acceptor Nanohoops. ACS Central Science, 2015, 1, 335-342.	11.3	116
17	Synthesis, Characterization, and Computational Studies of Cycloparaphenylene Dimers. Journal of the American Chemical Society, 2012, 134, 19709-19715.	13.7	115
18	Utilization of an Oxonia-Cope Rearrangement as a Mechanistic Probe for Prins Cyclizations. Journal of the American Chemical Society, 2005, 127, 9939-9945.	13.7	106

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19	Exploration of the Solid-State Sorption Properties of Shape-Persistent Macrocyclic Nanocarbons as Bulk Materials and Small Aggregates. Journal of the American Chemical Society, 2020, 142, 8763-8775.	13.7	86
20	Synthesis of Tetraphenyl-Substituted [12]Cycloparaphenylene: Toward a Rationally Designed Ultrashort Carbon Nanotube. Journal of Organic Chemistry, 2012, 77, 5857-5860.	3.2	82
21	Symmetry breaking and the turn-on fluorescence of small, highly strained carbon nanohoops. Chemical Science, 2019, 10, 3786-3790.	7.4	80
22	Tightening of the Nanobelt upon Multielectron Reduction. Angewandte Chemie - International Edition, 2013, 52, 5033-5036.	13.8	78
23	Properties of Sizeable [<i>n</i>]Cycloparaphenylenes as Molecular Models of Singleâ€Wall Carbon Nanotubes Elucidated by Raman Spectroscopy: Structural and Electronâ€Transfer Responses under Mechanical Stress. Angewandte Chemie - International Edition, 2014, 53, 7033-7037.	13.8	77
24	Expanding the Chemical Space of Biocompatible Fluorophores: Nanohoops in Cells. ACS Central Science, 2018, 4, 1173-1178.	11.3	75
25	The Effects of Cyclic Conjugation and Bending on the Optoelectronic Properties of Paraphenylenes. Organic Letters, 2014, 16, 182-185.	4.6	73
26	Towards pi-extended cycloparaphenylenes as seeds for CNT growth: investigating strain relieving ring-openings and rearrangements. Chemical Science, 2016, 7, 3681-3688.	7.4	72
27	Raman spectroscopy of carbon nanohoops. Carbon, 2014, 67, 203-213.	10.3	70
28	Selective and Gram-Scale Synthesis of [6]Cycloparaphenylene. Synlett, 2015, 26, 1615-1619.	1.8	63
29	Nanohoop Rotaxanes from Active Metal Template Syntheses and Their Potential in Sensing Applications. Angewandte Chemie - International Edition, 2019, 58, 7341-7345.	13.8	63
30	Strain visualization for strained macrocycles. Chemical Science, 2020, 11, 3923-3930.	7.4	62
31	An Operationally Simple and Mild Oxidative Homocoupling of Aryl Boronic Esters To Access Conformationally Constrained Macrocycles. Journal of the American Chemical Society, 2017, 139, 3106-3114.	13.7	60
32	Photophysical and theoretical investigations of the [8]cycloparaphenylene radical cation and its charge-resonance dimer. Chemical Science, 2013, 4, 4285.	7.4	59
33	2,2â€²-Bipyridyl-Embedded Cycloparaphenylenes as a General Strategy To Investigate Nanohoop-Based Coordination Complexes. Journal of the American Chemical Society, 2017, 139, 2936-2939.	13.7	59
34	Iterative Reductive Aromatization/Ring-Closing Metathesis Strategy toward the Synthesis of Strained Aromatic Belts. Journal of the American Chemical Society, 2016, 138, 6577-6582.	13.7	55
35	Solid-State Order and Charge Mobility in [5]- to [12]Cycloparaphenylenes. Journal of the American Chemical Society, 2019, 141, 952-960.	13.7	54
36	Solvolysis of a Tetrahydropyranyl Mesylate:â€‰ Mechanistic Implications for the Prins Cyclization, 2-Oxonia-Cope Rearrangement, and Grob Fragmentation. Organic Letters, 2006, 8, 2175-2178.	4.6	51

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37	A Circle Has No End: Role of Cyclic Topology and Accompanying Structural Reorganization on the Hole Distribution in Cyclic and Linear Poly-<i>p</i>-phenylene Molecular Wires. Journal of the American Chemical Society, 2015, 137, 14999-15006.	13.7	50
38	Investigating the Reactivity of 1,4-Anthracene-Incorporated Cycloparaphenylene. Organic Letters, 2016, 18, 1574-1577.	4.6	49
39	Carbon Nanohoops: Excited Singlet and Triplet Behavior of [9]- and [12]-Cycloparaphenylene. Journal of Physical Chemistry A, 2014, 118, 1595-1600.	2.5	48
40	A Bottom-Up Approach to Solution-Processed, Atomically Precise Graphitic Cylinders on Graphite. Nano Letters, 2018, 18, 7991-7997.	9.1	48
41	Highly strained [6]cycloparaphenylene: crystallization of an unsolvated polymorph and the first mono- and dianions. Chemical Communications, 2018, 54, 7818-7821.	4.1	48
42	A Molecular Propeller with Three Nanohoop Blades: Synthesis, Characterization, and Solidâ€State Packing. Angewandte Chemie - International Edition, 2017, 56, 5237-5241.	13.8	39
43	Synthesis, Characterization, and Computational Investigation of Bright Orangeâ€Emitting Benzothiadiazole [10]Cycloparaphenylene. Angewandte Chemie - International Edition, 2020, 59, 14363-14367.	13.8	39
44	Theoretical Analysis of [5.7]_{<i>n</i>}Cyclacenes: Closed-Shell Cyclacene Isomers. Organic Letters, 2011, 13, 6220-6223.	4.6	33
45	Strainâ€Promoted Reactivity of Alkyneâ€Containing Cycloparaphenylenes. Angewandte Chemie - International Edition, 2018, 57, 16348-16353.	13.8	33
46	Quantum Dynamics Simulations Reveal Vibronic Effects on the Optical Properties of [<i>n</i>]Cycloparaphenylenes. Journal of Chemical Theory and Computation, 2014, 10, 4025-4036.	5.3	32
47	Linear and Radial Conjugation in Extended Ï€-Electron Systems. Journal of the American Chemical Society, 2020, 142, 2293-2300.	13.7	32
48	From linear to cyclic oligoparaphenylenes: electronic and molecular changes traced in the vibrational Raman spectra and reformulation of the bond length alternation pattern. Physical Chemistry Chemical Physics, 2016, 18, 11683-11692.	2.8	30
49	Probing Dielsâ€"Alder reactivity on a model CNT sidewall. Tetrahedron, 2016, 72, 3754-3758.	1.9	28
50	Active Metal Template Synthesis and Characterization of a Nanohoop [c 2]Daisy Chain Rotaxane. Chemistry - A European Journal, 2020, 26, 10205-10209.	3.3	27
51	Subcellular Targeted Nanohoop for One- and Two-Photon Live Cell Imaging. ACS Nano, 2021, 15, 15285-15293.	14.6	25
52	Structural deformation and hostâ€"guest properties of doubly-reduced cycloparaphenylenes, [<i>n</i>]CPPs^{2â^'} (<i>n</i> = 6, 8, 10, and 12). Chemical Science, 2020, 11, 9395-9401.	7.4	24
53	Carbon Nanohoops: Excited Singlet and Triplet Behavior of Aza[8]CPP and 1,15-Diaza[8]CPP. Journal of Physical Chemistry A, 2015, 119, 8083-8089.	2.5	23
54	Precision Nanotube Mimics via Self-Assembly of Programmed Carbon Nanohoops. Journal of Organic Chemistry, 2020, 85, 129-141.	3.2	23

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55	Polyyne [3]Rotaxanes: Synthesis via Dicobalt Carbonyl Complexes and Enhanced Stability. Angewandte Chemie - International Edition, 2022, 61, .	13.8	23
56	Quantum Confinement of Surface Electrons by Molecular Nanohoop Corrals. Journal of Physical Chemistry Letters, 2016, 7, 3073-3077.	4.6	22
57	The Raman fingerprint of cyclic conjugation: the case of the stabilization of cations and dications in cycloparaphenylenes. Chemical Science, 2016, 7, 3494-3499.	7.4	21
58	A Molecular Propeller with Three Nanohoop Blades: Synthesis, Characterization, and Solidâ€State Packing. Angewandte Chemie, 2017, 129, 5321-5325.	2.0	20
59	Effect of curvature and placement of donor and acceptor units in cycloparaphenylenes: a computational study. Chemical Science, 2020, 11, 12029-12035.	7.4	20
60	Raman-Active Modes of Even-Numbered Cycloparaphenylenes: Comparisons between Experiments and Density Functional Theory (DFT) Calculations with Group Theory Arguments. Journal of Physical Chemistry C, 2015, 119, 2879-2887.	3.1	19
61	Synthesis, Characterization, and Computational Investigation of Bright Orangeâ€Emitting Benzothiadiazole [10]Cycloparaphenylene. Angewandte Chemie, 2020, 132, 14469-14473.	2.0	17
62	Strainâ€Promoted Reactivity of Alkyneâ€Containing Cycloparaphenylenes. Angewandte Chemie, 2018, 130, 16586-16591.	2.0	15
63	Controlled Polymerization of Norbornene Cycloparaphenylenes Expands Carbon Nanomaterials Design Space. ACS Central Science, 2021, 7, 1056-1065.	11.3	15
64	Spinâ€Crossover Properties of an Iron(II) Coordination Nanohoop. Angewandte Chemie - International Edition, 2021, 60, 3515-3518.	13.8	14
65	Nanohoop Rotaxanes from Active Metal Template Syntheses and Their Potential in Sensing Applications. Angewandte Chemie, 2019, 131, 7419-7423.	2.0	13
66	Splitting the Ring: Impact of <i>Ortho</i> and <i>Meta</i> Pi Conjugation Pathways through Disjointed [8]Cycloparaphenylene Electronic Materials. Journal of the American Chemical Society, 2022, 144, 4611-4622.	13.7	12
67	Stretching [8]cycloparaphenylene with encapsulated potassium cations: structural and theoretical insights into core perturbation upon four-fold reduction and complexation. Chemical Science, 2021, 12, 6526-6535.	7.4	11
68	Nanohoop Rotaxane Design to Enhance the Selectivity of Reaction-Based Probes: A Proof-of-Principle Study. Organic Letters, 2021, 23, 4608-4612.	4.6	11
69	Highâ€Pressure Chemistry and the Mechanochemical Polymerization of [5]â€Cycloâ€<i>p</i>â€phenylene. Chemistry - A European Journal, 2017, 23, 16593-16604.	3.3	10
70	Stereochemical implications toward the total synthesis of aromatic belts. Pure and Applied Chemistry, 2017, 89, 1603-1617.	1.9	10
71	Synthesis of carbon nanohoops containing thermally stable cis azobenzene. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 382, 111878.	3.9	10
72	How to make interlocked nanocarbons. Science, 2019, 365, 216-217.	12.6	6

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73	Polyyne [3]Rotaxanes: Synthesis via Dicobalt Carbonyl Complexes and Enhanced Stability. Angewandte Chemie, 0, , .	2.0	5
74	Carbon nanobelts do the twist. , 2022, 1, 502-503.		3
75	Ring-opening metathesis polymerization of a strained stilbene-based macrocyclic monomer. Materials Chemistry Frontiers, 2020, 4, 252-256.	5.9	1
76	Spinâ€Crossover Properties of an Iron(II) Coordination Nanohoop. Angewandte Chemie, 2021, 133, 3557-3560.	2.0	0