

Silvio Osella

List of Publications by Year in descending order

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68
papers

1,926
citations

257450

24
h-index

265206

42
g-index

69
all docs

69
docs citations

69
times ranked

3017
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomically precise edge chlorination of nanographenes and its application in graphene nanoribbons. Nature Communications, 2013, 4, 2646.	12.8	187
2	Unraveling Unprecedented Charge Carrier Mobility through Structure Property Relationship of Four Isomers of Didodecyl[1]benzothieno[3,2- <i>b</i>][1]benzothiophene. Advanced Materials, 2016, 28, 7106-7114.	21.0	138
3	Unexpected Scholl Reaction of 6,7,13,14-Tetraarylbenzo[<i>k</i>]tetraphene: Selective Formation of Five-Membered Rings in Polycyclic Aromatic Hydrocarbons. Journal of the American Chemical Society, 2016, 138, 2602-2608.	13.7	103
4	Graphene Nanoribbons as Low Band Gap Donor Materials for Organic Photovoltaics: Quantum Chemical Aided Design. ACS Nano, 2012, 6, 5539-5548.	14.6	99
5	Light-enhanced liquid-phase exfoliation and current photoswitching in graphene-azobenzene composites. Nature Communications, 2016, 7, 11090.	12.8	97
6	Large Work Function Shift of Gold Induced by a Novel Perfluorinated Azobenzene-Based Self-Assembled Monolayer. Advanced Materials, 2013, 25, 432-436.	21.0	93
7	Fused Dibenzo[<i>a</i> , <i>m</i>]rubicene: A New Bowl-Shaped Subunit of C ₇₀ Containing Two Pentagons. Journal of the American Chemical Society, 2016, 138, 8364-8367.	13.7	66
8	Role of Edge Engineering in Photoconductivity of Graphene Nanoribbons. Journal of the American Chemical Society, 2017, 139, 7982-7988.	13.7	64
9	Photoinduced work function changes by isomerization of a densely packed azobenzene-based SAM on Au: a joint experimental and theoretical study. Physical Chemistry Chemical Physics, 2011, 13, 14302.	2.8	61
10	First Principles Calculations of Charge Transfer Excitations in Polymer-Fullerene Complexes: Influence of Excess Energy. Advanced Functional Materials, 2015, 25, 1972-1984.	14.9	59
11	Nonplanar Rhombus and Kagome 2D Covalent Organic Frameworks from Distorted Aromatics for Electrical Conduction. Journal of the American Chemical Society, 2022, 144, 5042-5050.	13.7	54
12	Experimental Observation of Strong Exciton Effects in Graphene Nanoribbons. Nano Letters, 2020, 20, 2993-3002.	9.1	52
13	Synthesis of Nonplanar Graphene Nanoribbon with Fjord Edges. Journal of the American Chemical Society, 2021, 143, 5654-5658.	13.7	52
14	A Curved Graphene Nanoribbon with Multi-Edge Structure and High Intrinsic Charge Carrier Mobility. Journal of the American Chemical Society, 2020, 142, 18293-18298.	13.7	50
15	Polymorphism, Fluorescence, and Optoelectronic Properties of a Borazine Derivative. Chemistry - A European Journal, 2013, 19, 7771-7779.	3.3	49
16	Bottom-Up Synthesis of Necklace-Like Graphene Nanoribbons. Chemistry - an Asian Journal, 2015, 10, 2134-2138.	3.3	43
17	Sulfur-Annulated Hexa-peri-hexabenzocoronene Decorated with Phenylthio Groups at the Periphery. Angewandte Chemie - International Edition, 2015, 54, 2927-2931.	13.8	36
18	Photoswitching Azobenzene Derivatives in Single Molecule Junctions: A Theoretical Insight into the <i>I</i> / <i>V</i> Characteristics. Journal of Physical Chemistry C, 2014, 118, 18721-18729.	3.1	32

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19	Î€-extended [12]cycloparaphenylenes: from a hexaphenylbenzene cyclohexamer to its unexpected C2-symmetric congener. <i>Chemical Science</i> , 2015, 6, 7072-7078.	7.4	32
20	Light-induced reversible modification of the work function of a new perfluorinated biphenyl azobenzene chemisorbed on Au (111). <i>Nanoscale</i> , 2014, 6, 8969-8977.	5.6	31
21	Cove-Edged Graphene Nanoribbons with Incorporation of Periodic Zigzag-Edge Segments. <i>Journal of the American Chemical Society</i> , 2022, 144, 228-235.	13.7	28
22	The Mechanism of the Acid-Catalyzed Benzidine Rearrangement of Hydrazobenzene: A Theoretical Study. <i>European Journal of Organic Chemistry</i> , 2011, 2011, 2326-2333.	2.4	27
23	Tuning nitrogen species to control the charge carrier concentration in highly doped graphene. <i>2D Materials</i> , 2016, 3, 011001.	4.4	27
24	Work function modification of the (111) gold surface covered by long alkanethiol-based self-assembled monolayers. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 2866.	2.8	26
25	Investigation into Biological Environments through (Non)linear Optics: A Multiscale Study of Laurdan Derivatives. <i>Journal of Chemical Theory and Computation</i> , 2016, 12, 6169-6181.	5.3	25
26	Performance of electrochemical immunoassays for clinical diagnostics of SARS-CoV-2 based on selective nucleocapsid N protein detection: Boron-doped diamond, gold and glassy carbon evaluation. <i>Biosensors and Bioelectronics</i> , 2022, 209, 114222.	10.1	23
27	Conformational Changes as Driving Force for Phase Recognition: The Case of Laurdan. <i>Langmuir</i> , 2019, 35, 11471-11481.	3.5	21
28	Triggering On/Off States of Photoswitchable Probes in Biological Environments. <i>Journal of the American Chemical Society</i> , 2017, 139, 4418-4428.	13.7	20
29	Controlling the charge transfer flow at the graphene/pyrene-nitrilotriacetic acid interface. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5046-5054.	5.5	18
30	Challenges for Incorporating Optical Switchability in Organic-Based Electronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 27737-27748.	8.0	17
31	Combined Molecular Dynamics and Density Functional Theory Study of Azobenzene-Graphene Interfaces. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6651-6658.	3.1	16
32	Azoliniums, Adducts, NHCs and Azomethine Ylides: Divergence in Wanzlick Equilibrium and Olefin Metathesis Catalyst Formation. <i>Chemistry - A European Journal</i> , 2018, 24, 4785-4789.	3.3	16
33	Atomistic Picture of Fluorescent Probes with Hydrocarbon Tails in Lipid Bilayer Membranes: An Investigation of Selective Affinities and Fluorescent Anisotropies in Different Environmental Phases. <i>Langmuir</i> , 2018, 34, 9072-9084.	3.5	15
34	Molecular Modeling of Mechanisms of Decomposition of Ruthenium Metathesis Catalysts by Acrylonitrile. <i>Organometallics</i> , 2020, 39, 239-246.	2.3	15
35	Geometric and Electronic Structures of Boron(III)-Cored Dyes Tailored by Incorporation of Heteroatoms into Ligands. <i>Chemistry - an Asian Journal</i> , 2015, 10, 709-714.	3.3	14
36	Perylene Derivatives As Useful SERRS Reporters, Including Multiplexing Analysis. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 28042-28048.	8.0	14

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37	Electrochemical Deposition of a Single-Crystalline Nanorod Polycyclic Aromatic Hydrocarbon Film with Efficient Charge and Exciton Transport. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	14
38	Energy Level Alignment at Interfaces Between Au (111) and Thiolated Oligophenylenes of Increasing Chain Size: Theoretical Evidence of Pinning Effects. <i>Advanced Theory and Simulations</i> , 2018, 1, 1700020.	2.8	13
39	Disentangling the role of solvent polarity and protein solvation in folding and self-assembly of α -lactalbumin. <i>Journal of Colloid and Interface Science</i> , 2020, 561, 749-761.	9.4	12
40	Solution Synthesis and Characterization of a Long and Curved Graphene Nanoribbon with Hybrid Cove-Armchair-Gulf Edge Structures. <i>Advanced Science</i> , 2022, 9, e2200708.	11.2	12
41	Combining (Non)linear Optical and Fluorescence Analysis of DiD To Enhance Lipid Phase Recognition. <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 5350-5359.	5.3	11
42	Evidence for Strong and Weak Phenyl-C ₆₁ -Butyric Acid Methyl Ester Photodimer Populations in Organic Solar Cells. <i>Chemistry of Materials</i> , 2019, 31, 6076-6083.	6.7	11
43	Role of Metal Centers in Tuning the Electronic Properties of Graphene-Based Conductive Interfaces. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8623-8632.	3.1	11
44	Push/Pull Effect as Driving Force for Different Optical Responses of Azobenzene in a Biological Environment. <i>Journal of Physical Chemistry C</i> , 2020, 124, 8310-8322.	3.1	11
45	The influence of lipid membranes on fluorescent probes' optical properties. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2021, 1863, 183494.	2.6	11
46	Laurdan as a Molecular Rotor in Biological Environments. <i>ACS Applied Bio Materials</i> , 2019, 2, 5769-5778.	4.6	10
47	Sulfur-Annulated Hexa-peri-hexabenzocoronene Decorated with Phenylthio Groups at the Periphery. <i>Angewandte Chemie</i> , 2015, 127, 2970-2974.	2.0	9
48	Assessing the Charge Transfer at the Cytochrome c ₅₅₃ /Graphene Interface: A Multiscale Investigation. <i>Journal of Physical Chemistry C</i> , 2018, 122, 29405-29413.	3.1	9
49	Modelling Coupled Ion Motion in Electrolyte Solutions for Lithium-Sulfur Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 473-481.	4.7	9
50	Influence of the supramolecular order on the electrical properties of 1D coordination polymers based materials. <i>Nanoscale</i> , 2016, 8, 2386-2394.	5.6	8
51	Environmental effects on the charge transfer properties of Graphene quantum dot based interfaces. <i>International Journal of Quantum Chemistry</i> , 2019, 119, e25882.	2.0	8
52	Enhancement of direct electron transfer in graphene bioelectrodes containing novel cytochrome c variants with optimized heme orientation. <i>Bioelectrochemistry</i> , 2021, 140, 107818.	4.6	7
53	Development of a universal conductive platform for anchoring photo- and electroactive proteins using organometallic terpyridine molecular wires. <i>Nanoscale</i> , 2021, 13, 9773-9787.	5.6	7
54	(INVITED) Lighting-up nanocarbons through hybridization: Optoelectronic properties and perspectives. <i>Optical Materials: X</i> , 2021, 12, 100100.	0.8	5

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55	Coherent Electron Transmission across Nanographenes Tethered to Gold Electrodes: Influence of Linker Topology, Ribbon Width, and Length. <i>Journal of Physical Chemistry C</i> , 2014, 118, 7643-7652.	3.1	4
56	Influence of Membrane Phase on the Optical Properties of DPH. <i>Molecules</i> , 2020, 25, 4264.	3.8	4
57	Molecular mechanism of direct electron transfer in the robust cytochrome-functionalised graphene nanosystem. <i>RSC Advances</i> , 2021, 11, 18860-18869.	3.6	3
58	Artificial Photosynthesis: Is Computation Ready for the Challenge Ahead?. <i>Nanomaterials</i> , 2021, 11, 299.	4.1	3
59	Electrochemical Deposition of a Single-Crystalline Nanorod Polycyclic Aromatic Hydrocarbon Film with Efficient Charge and Exciton Transport. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	3
60	Solvent-trap reaction of triazolinones with simple alkenes: an experimental/theoretical study of thermodynamic and kinetic parameters. <i>Tetrahedron</i> , 2015, 71, 9474-9482.	1.9	2
61	Architecture and Function of Biohybrid Solar Cell and Solar-to-Fuel Nanodevices. <i>Springer Series in Materials Science</i> , 2020, , 227-274.	0.6	2
62	Exhibiting environment sensitive optical properties through multiscale modelling: A study of photoactivatable probes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2022, 425, 113672.	3.9	2
63	Design Principles and Insights into the Liquid-Phase Exfoliation of Alpha-MoO ₃ for the Production of Colloidal 2D Nano-inks in Green Solvents. <i>Journal of Physical Chemistry C</i> , 2022, 126, 404-415.	3.1	2
64	Diazonium-Based Covalent Molecular Wiring of Single-Layer Graphene Leads to Enhanced Unidirectional Photocurrent Generation through the p-doping Effect. <i>Chemistry of Materials</i> , 2022, 34, 3744-3758.	6.7	2
65	The Interplay of Conjugation and Metal Coordination in Tuning the Electron Transfer Abilities of NTA-Graphene Based Interfaces. <i>International Journal of Molecular Sciences</i> , 2022, 23, 543.	4.1	1
66	Charge Carrier Mobility: Unraveling Unprecedented Charge Carrier Mobility through Structure Property Relationship of Four Isomers of Didodecyl[1]benzothieno[3,2-b][1]benzothiophene (Adv.) <i>Tj ETQq0 0 0 rgB0/Overlock 10 Tf 5</i>	2.0	0
67	Hybrid nanomaterials for artificial photosynthesis. , 2020, , .		0
68	Deciphering Photoinduced Charge Transfer Dynamics in a Cross-Linked Graphene-Dye Nanohybrid. <i>Journal of Physical Chemistry C</i> , 2022, 126, 3569-3581.	3.1	0