

Carlo A Pignedoli

List of Publications by Year in descending order

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79
papers

7,996
citations

87723

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h-index

64668

79
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85
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85
docs citations

85
times ranked

6391
citing authors

#	ARTICLE	IF	CITATIONS
1	On-surface synthesis and characterization of nitrogen-substituted undecacenes. <i>Nature Communications</i> , 2022, 13, 511.	5.8	26
2	On-surface synthesis of porous graphene nanoribbons containing nonplanar [14]annulene pores. <i>Journal of Polymer Science</i> , 2022, 60, 1912-1917.	2.0	14
3	On-surface polyarylene synthesis by cycloaromatization of isopropyl substituents. , 2022, 1, 289-296.		31
4	Growth Optimization and Device Integration of Narrow-Bandgap Graphene Nanoribbons. <i>Small</i> , 2022, 18, .	5.2	17
5	On-surface synthesis of singly and doubly porphyrin-capped graphene nanoribbon segments. <i>Chemical Science</i> , 2021, 12, 247-252.	3.7	27
6	Synthesis and characterization of [7]triangulene. <i>Nanoscale</i> , 2021, 13, 1624-1628.	2.8	62
7	Mapping the Structure of Oxygen-Doped Wurtzite Aluminum Nitride Coatings from <i>Ab Initio</i> Random Structure Search and Experiments. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 5762-5771.	4.0	3
8	AiiDALab – an ecosystem for developing, executing, and sharing scientific workflows. <i>Computational Materials Science</i> , 2021, 188, 110165.	1.4	40
9	On-surface activation of benzylic C-H bonds for the synthesis of pentagon-fused graphene nanoribbons. <i>Nano Research</i> , 2021, 14, 4754-4759.	5.8	14
10	Graphene nanoribbons with mixed cove-cape-zigzag edge structure. <i>Carbon</i> , 2021, 175, 50-59.	5.4	20
11	Asymmetric azide-alkyne Huisgen cycloaddition on chiral metal surfaces. <i>Communications Chemistry</i> , 2021, 4, .	2.0	7
12	Large magnetic exchange coupling in rhombus-shaped nanographenes with zigzag periphery. <i>Nature Chemistry</i> , 2021, 13, 581-586.	6.6	104
13	Metallic carbon nanotube quantum dots with broken symmetries as a platform for tunable terahertz detection. <i>Applied Physics Reviews</i> , 2021, 8, .	5.5	5
14	On-Surface Synthesis and Characterization of Super-nonazethrene. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8314-8319.	2.1	22
15	On-surface synthesis of π -conjugated ladder-type polymers comprising nonbenzenoid moieties. <i>RSC Advances</i> , 2021, 11, 23437-23441.	1.7	5
16	Observation of fractional edge excitations in nanographene spin chains. <i>Nature</i> , 2021, 598, 287-292.	18.7	115
17	Lightwave-driven scanning tunnelling spectroscopy of atomically precise graphene nanoribbons. <i>Nature Communications</i> , 2021, 12, 6794.	5.8	29
18	On-Surface Synthesis and Characterization of Triply Fused Porphyrin-Graphene Nanoribbon Hybrids. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1334-1339.	7.2	47

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19	On-Surface Synthesis and Characterization of Triply Fused Porphyrin-Graphene Nanoribbon Hybrids. <i>Angewandte Chemie</i> , 2020, 132, 1350-1355.	1.6	11
20	InnenrÄ¼cktitelbild: On-Surface Synthesis and Characterization of Triply Fused Porphyrin-Graphene Nanoribbon Hybrids (<i>Angew. Chem.</i> 3/2020). <i>Angewandte Chemie</i> , 2020, 132, 1371-1371.	1.6	2
21	Topological frustration induces unconventional magnetism in a nanographene. <i>Nature Nanotechnology</i> , 2020, 15, 22-28.	15.6	227
22	On-Surface Synthesis of Non-Benzenoid Nanographenes by Oxidative Ring-Closure and Ring-Rearrangement Reactions. <i>Journal of the American Chemical Society</i> , 2020, 142, 13565-13572.	6.6	58
23	On-Surface Synthesis of Oligo(indenoindene). <i>Journal of the American Chemical Society</i> , 2020, 142, 12925-12929.	6.6	29
24	Near-Enantiopure Trimerization of 9-Ethynylphenanthrene on a Chiral Metal Surface. <i>Angewandte Chemie</i> , 2020, 132, 18336-18340.	1.6	2
25	Coupled Spin States in Armchair Graphene Nanoribbons with Asymmetric Zigzag Edge Extensions. <i>Nano Letters</i> , 2020, 20, 6429-6436.	4.5	64
26	Materials Cloud, a platform for open computational science. <i>Scientific Data</i> , 2020, 7, 299.	2.4	189
27	On-surface synthesis of super-heptazethrene. <i>Chemical Communications</i> , 2020, 56, 7467-7470.	2.2	21
28	Reaction Pathway toward Seven-Atom-Wide Armchair Graphene Nanoribbon Formation and Identification of Intermediate Species on Au(111). <i>Journal of Physical Chemistry C</i> , 2020, 124, 16009-16018.	1.5	3
29	Near-Enantiopure Trimerization of 9-Ethynylphenanthrene on a Chiral Metal Surface. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 18179-18183.	7.2	9
30	Large-Cavity Coronoids with Different Inner and Outer Edge Structures. <i>Journal of the American Chemical Society</i> , 2020, 142, 12046-12050.	6.6	38
31	Massive Dirac Fermion Behavior in a Low Bandgap Graphene Nanoribbon Near a Topological Phase Boundary. <i>Advanced Materials</i> , 2020, 32, e1906054.	11.1	44
32	On-Surface Synthesis of Cumulene-Containing Polymers via Two-Step Dehalogenative Homocoupling of Dibromomethylene-Functionalized Tribenzoazulene. <i>Angewandte Chemie</i> , 2020, 132, 13383-13389.	1.6	15
33	On-Surface Synthesis of Cumulene-Containing Polymers via Two-Step Dehalogenative Homocoupling of Dibromomethylene-Functionalized Tribenzoazulene. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 13281-13287.	7.2	23
34	Collective All-Carbon Magnetism in Triangulene Dimers**. <i>Angewandte Chemie</i> , 2020, 132, 12139-12145.	1.6	23
35	Collective All-Carbon Magnetism in Triangulene Dimers**. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 12041-12047.	7.2	96
36	Atomic-resolution differential phase contrast STEM on ferroelectric materials: A mean-field approach. <i>Physical Review B</i> , 2020, 101, .	1.1	11

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37	Electronic Structure of Atomically Precise Graphene Nanoribbons. , 2020, , 685-719.		0
38	Open-Shell Nonbenzenoid Nanographenes Containing Two Pairs of Pentagonal and Heptagonal Rings. Journal of the American Chemical Society, 2019, 141, 12011-12020.	6.6	112
39	On-Surface Synthesis of Antiaromatic and Open-Shell Indeno[2,1- <i>b</i>]fluorene Polymers and Their Lateral Fusion into Porous Ribbons. Journal of the American Chemical Society, 2019, 141, 12346-12354.	6.6	71
40	Band Gap of Atomically Precise Graphene Nanoribbons as a Function of Ribbon Length and Termination. ChemPhysChem, 2019, 20, 2348-2353.	1.0	17
41	Negatively Curved Warped Nanographene Self-Assembled on Metal Surfaces. Journal of the American Chemical Society, 2019, 141, 13158-13164.	6.6	38
42	On-surface synthesis and characterization of individual polyacetylene chains. Nature Chemistry, 2019, 11, 924-930.	6.6	67
43	Synthesis and Characterization of Ā-Extended Triangulene. Journal of the American Chemical Society, 2019, 141, 10621-10625.	6.6	165
44	Overcoming Steric Hindrance in ArylĀAryl Homocoupling via OnĀSurface Copolymerization. ChemPhysChem, 2019, 20, 2360-2366.	1.0	14
45	On-Surface Synthesis of a Nonplanar Porous Nanographene. Journal of the American Chemical Society, 2019, 141, 7726-7730.	6.6	61
46	On-surface light-induced generation of higher acenes and elucidation of their open-shell character. Nature Communications, 2019, 10, 861.	5.8	114
47	Graphene Nanoribbons Derived from Zigzag Edge-Encased Poly(<i>para</i> -2,9-dibenzo[<i>b</i> , <i>l</i>]coronene) Polymer Chains. Journal of the American Chemical Society, 2019, 141, 2843-2846.	6.6	40
48	On-surface synthesis of polyazulene with 2,6-connectivity. Chemical Communications, 2019, 55, 13466-13469.	2.2	23
49	Electronic Structure of Atomically Precise Graphene Nanoribbons. , 2019, , 1-35.		0
50	On-Surface Synthesis of Indenofluorene Polymers by Oxidative Five-Membered Ring Formation. Journal of the American Chemical Society, 2018, 140, 3532-3536.	6.6	60
51	Toward <i>GW</i> Calculations on Thousands of Atoms. Journal of Physical Chemistry Letters, 2018, 9, 306-312.	2.1	104
52	Hidden Beneath the Surface: Origin of the Observed Enantioselective Adsorption on PdGa(111). Journal of the American Chemical Society, 2018, 140, 1401-1408.	6.6	16
53	On-surface synthesis of a nitrogen-embedded buckybowl with inverse StoneĀThrowerĀWales topology. Nature Communications, 2018, 9, 1714.	5.8	98
54	Electronic Structure of Atomically Precise Graphene Nanoribbons. , 2018, , 1-35.		1

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55	Tailoring Bond Topologies in Open-Shell Graphene Nanostructures. ACS Nano, 2018, 12, 11917-11927.	7.3	118
56	Bottom-Up Synthesis of Heteroatom-Doped Chiral Graphene Nanoribbons. Journal of the American Chemical Society, 2018, 140, 9104-9107.	6.6	110
57	Engineering of robust topological quantum phases in graphene nanoribbons. Nature, 2018, 560, 209-213.	13.7	397
58	On-Surface Synthesis and Characterization of 9-Atom Wide Armchair Graphene Nanoribbons. ACS Nano, 2017, 11, 1380-1388.	7.3	270
59	On-Surface Synthesis of Heptacene Organometallic Complexes. Journal of the American Chemical Society, 2017, 139, 11658-11661.	6.6	83
60	Water Formation for the Metalation of Porphyrin Molecules on Oxidized Cu(111). Chemistry - A European Journal, 2016, 22, 14672-14677.	1.7	18
61	Giant edge state splitting at atomically precise graphene zigzag edges. Nature Communications, 2016, 7, 11507.	5.8	207
62	On-surface synthesis of graphene nanoribbons with zigzag edge topology. Nature, 2016, 531, 489-492.	13.7	1,154
63	Superlubricity of graphene nanoribbons on gold surfaces. Science, 2016, 351, 957-961.	6.0	302
64	Electronic band dispersion of graphene nanoribbons via Fourier-transformed scanning tunneling spectroscopy. Physical Review B, 2015, 91, .	1.1	85
65	Moleculesâ€“Oligomersâ€“Nanowiresâ€“Graphene Nanoribbons: A Bottom-Up Stepwise On-Surface Covalent Synthesis Preserving Long-Range Order. Journal of the American Chemical Society, 2015, 137, 1802-1808.	6.6	221
66	Graphene nanoribbon heterojunctions. Nature Nanotechnology, 2014, 9, 896-900.	15.6	528
67	Exciton-dominated optical response of ultra-narrow graphene nanoribbons. Nature Communications, 2014, 5, 4253.	5.8	155
68	Adsorption of Small Hydrocarbons on the Three-Fold PdGa Surfaces: The Road to Selective Hydrogenation. Journal of the American Chemical Society, 2014, 136, 11792-11798.	6.6	90
69	Ensemble Effect Evidenced by CO Adsorption on the 3-Fold PdGa Surfaces. Journal of Physical Chemistry C, 2014, 118, 12260-12265.	1.5	34
70	Termini of Bottom-Up Fabricated Graphene Nanoribbons. Journal of the American Chemical Society, 2013, 135, 2060-2063.	6.6	214
71	Phase constitution and interface structure of nano-sized Ag-Cu/AlN multilayers: Experiment and <i>ab initio</i> modeling. Applied Physics Letters, 2012, 101, .	1.5	16
72	Electronic Structure of Atomically Precise Graphene Nanoribbons. ACS Nano, 2012, 6, 6930-6935.	7.3	410

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73	Isolated Pd Sites on the Intermetallic PdGa(111) and PdGa(PdGa) Model Catalyst Surfaces. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9339-9343.	7.2	47
74	Intraribbon Heterojunction Formation in Ultranarrow Graphene Nanoribbons. <i>ACS Nano</i> , 2012, 6, 2020-2025.	7.3	169
75	Surface-assisted cyclodehydrogenation provides a synthetic route towards easily processable and chemically tailored nanographenes. <i>Nature Chemistry</i> , 2011, 3, 61-67.	6.6	395
76	s -orbital continuum model accounting for the tip shape in simulated scanning tunneling microscope images. <i>Physical Review B</i> , 2011, 84, .	1.1	8
77	A simple approach for describing metal-supported cyclohexaphenylene dehydrogenation. <i>European Physical Journal B</i> , 2010, 75, 65-70.	0.6	11
78	Role of negatively charged defects in the lattice contraction of AlSiN. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	11
79	Two-Dimensional Polymer Formation on Surfaces: Insight into the Roles of Precursor Mobility and Reactivity. <i>Journal of the American Chemical Society</i> , 2010, 132, 16669-16676.	6.6	449