Carlo S Casari

List of Publications by Year
in descending order

132 papers	4,773 citations	81900 39 h-index	110387 64 g-index
136 all docs	136 docs citations	136 times ranked	6027 citing authors

#	Article	IF	Citations
1	Hierarchical TiO₂ Photoanode for Dye-Sensitized Solar Cells. Nano Letters, 2010, 10, 2562-2567.	9.1	331
2	Cluster-Beam Deposition andin situCharacterization of Carbyne-Rich Carbon Films. Physical Review Letters, 2002, 89, 285506.	7.8	240
3	Carbon-atom wires: 1-D systems with tunable properties. Nanoscale, 2016, 8, 4414-4435.	5.6	221
4	Multi-wavelength Raman scattering of nanostructured Al-doped zinc oxide. Journal of Applied Physics, 2014, 115, .	2.5	198
5	Chemical and thermal stability of carbyne-like structures in cluster-assembled carbon films. Physical Review B, 2004, 69, .	3.2	150
6	Nanostructured tungsten oxide with controlled properties: Synthesis and Raman characterization. Thin Solid Films, 2007, 515, 6465-6469.	1.8	128
7	Hierarchically organized nanostructured TiO₂for photocatalysis applications. Nanotechnology, 2009, 20, 015604.	2.6	122
8	Influence of Cumulenic Chains on the Vibrational and Electronic Properties ofspâˆ’sp2Amorphous Carbon. Physical Review Letters, 2007, 98, 216103.	7.8	117
9	Raman spectroscopy of Biâ€Te thin films. Journal of Raman Spectroscopy, 2008, 39, 205-210.	2.5	109
10	Raman and SERS investigation of isolated sp carbon chains. Chemical Physics Letters, 2006, 417, 78-82.	2.6	102
11	Thermoelectric properties of Biâ€“Te films with controlled structure and morphology. Journal of Applied Physics, 2009, 105, .	2.5	93
12	Carbyne: from the elusive allotrope to stable carbon atom wires. MRS Communications, 2018, 8, 207-219.	1.8	92
13	Raman spectroscopy as a tool to investigate the structure and electronic properties of carbon-atom wires. Beilstein Journal of Nanotechnology, 2015, 6, 480-491.	2.8	83
14	Pulsed laser deposition of Bi2Te3 thermoelectric films. Applied Surface Science, 2007, 254, 1249-1254.	6.1	80
15	Growth regimes in pulsed laser deposition of aluminum oxide films. Applied Physics A: Materials Science and Processing, 2008, 93, 765-769.	2.3	73
16	Synthesis and characterization of tungsten and tungsten oxide nanostructured films. Catalysis Today, 2006, 116, 69-73.	4.4	72
17	Titanium Dioxide Coated MALDI Plate for On Target Analysis of Phosphopeptides. Journal of Proteome Research, 2009, 8, 1932-1942.	3.7	71
18	Pulsed laser deposition of tungsten and tungsten oxide thin films with tailored structure at the nano- and mesoscale. Applied Surface Science, 2007, 253, 8130-8135.	6.1	70

#	ARTICLE	IF	CITATIONS
19	Structural and functional properties of Al:ZnO thin films grown by Pulsed Laser Deposition at room temperature. Thin Solid Films, 2012, 520, 4707-4711.	1.8	70
20	Low-frequency modes in the Raman spectrum of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>s</mml:mi><mml:mi>p</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>s</mml:mi><mml:msu carbon. Physical Review B, 2008, 77, .	3.2	69
21	Hyperbranched Quasi-1D Nanostructures for Solid-State Dye-Sensitized Solar Cells. ACS Nano, 2013, 7, 10023-10031.	14.6	65
22	Surface electronic and structural properties of nanostructured titanium oxide grown by pulsed laser deposition. Surface Science, 2011, 605, 333-340.	1.9	62
23	Photocatalytic behavior of different titanium dioxide layers. Thin Solid Films, 2007, 515, 6309-6313.	1.8	59
24	A Major Role for Side-Chain Polyglutamine Hydrogen Bonding in Irreversible Ataxin-3 Aggregation. PLoS ONE, 2011, 6, e18789.	2.5	57
25	Recovery of local density of states using scanning tunneling spectroscopy. Physical Review B, 2009, 79, .	3.2	56
26	Charge Transfer and Vibrational Structure of sp-Hybridized Carbon Atomic Wires Probed by Surface Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2011, 115, 12836-12843.	3.1	56
27	Highly active nickelâ€“cobalt/nanocarbon thin films as efficient water splitting electrodes. Nanoscale, 2016, 8, 18507-18515.	5.6	56
28	Structure-dependent optical and electrical transport properties of nanostructured Al-doped ZnO. Nanotechnology, 2012, 23, 365706.	2.6	55
29	Structural and gas-sensing characterization of tungsten oxide nanorods and nanoparticles. Sensors and Actuators B: Chemical, 2011, 153, 340-346.	7.8	53
30	Pulsed laser deposition of single-layer MoS₂ on Au(111): from nanosized crystals to large-area films. Nanoscale Advances, 2019, 1, 643-655.	4.6	52
31	Stabilization of linear carbon structures in a solid Ag nanoparticle assembly. Applied Physics Letters, 2007, 90, 013111.	3.3	50
32	Integration of plasmonic Au nanoparticles in TiO2 hierarchical structures in a single-step pulsed laser co-deposition. Materials and Design, 2018, 156, 311-319.	7.0	49
33	Engineering plasmonic nanostructured surfaces by pulsed laser deposition. Applied Surface Science, 2018, 434, 1064-1073.	6.1	47
34	Tuning of Electrical and Optical Properties of Highly Conducting and Transparent Ta-Doped TiO₂Polycrystalline Films. Journal of Physical Chemistry C, 2015, 119, 6988-6997.	3.1	46
35	Scanning tunneling spectroscopy of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Fe</mml:mtext><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mn>001</mml:mn> Physical Review B, 2009, 79, .	3.2	43
36	Vibrationalâ€“Electrical Properties Relationship in Donor-Doped TiO₂ by Raman Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 18878-18886.	3.1	43

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37	Disclosing the Early Stages of Electrochemical Anion Intercalation in Graphite by a Combined Atomic Force Microscopy/Scanning Tunneling Microscopy Approach. Journal of Physical Chemistry C, 2016, 120, 6088-6093.	3.1	43
38	Semiconductor-to-Metal Transition in Carbon-Atom Wires Driven by sp² Conjugated End Groups. Journal of Physical Chemistry C, 2017, 121, 10562-10570.	3.1	43
39	Direct observation of the basic mechanisms of Pd island nucleation on Au(111). Physical Review B, 2009, 79, .	3.2	42
40	sp Carbon chain interaction with silver nanoparticles probed by Surface Enhanced Raman Scattering. Chemical Physics Letters, 2009, 478, 45-50.	2.6	40
41	Bulk Cr tips for scanning tunneling microscopy and spin-polarized scanning tunneling microscopy. Applied Physics Letters, 2007, 91, .	3.3	39
42	Synthesis, Structure and Thermal Properties of Copper and Silver Polyynides and Acetylides. Journal of Inorganic and Organometallic Polymers and Materials, 2007, 17, 641-651.	3.7	39
43	Nanostructured Ag₄O₄films with enhanced antibacterial activity. Nanotechnology, 2008, 19, 475602.	2.6	38
44	Leaving the fullerene road: presence and stability of sp chains in sp2carbon clusters and cluster-assembled solids. New Journal of Physics, 2005, 7, 81-81.	2.9	37
45	Carbon-atom wires produced by nanosecond pulsed laser deposition in a background gas. Carbon, 2016, 104, 190-195.	10.3	35
46	Titanium oxide nanostructured films by reactive pulsed laser deposition. Applied Surface Science, 2009, 255, 5334-5337.	6.1	34
47	Nanostructured high valence silver oxide produced by pulsed laser deposition. Applied Surface Science, 2009, 255, 5248-5251.	6.1	34
48	Atomic corrugation in scanning tunneling microscopy images of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Fe</mml:mtext><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:mn>001</mml:mn> Physical Review B, 2010, 81, .	3.2	33
49	Hydrogen-treated hierarchical titanium oxide nanostructures for photoelectrochemical water splitting. Solar Energy Materials and Solar Cells, 2017, 169, 19-27.	6.2	32
50	Nature of Point Defects in Single-Layer MoS₂ Supported on Au(111). Journal of Physical Chemistry C, 2020, 124, 12424-12431.	3.1	30
51	Acoustic phonon propagation and elastic properties of cluster-assembled carbon films investigated by Brillouin light scattering. Physical Review B, 2001, 64, .	3.2	29
52	Elastic properties of graphene suspended on a polymer substrate by e-beam exposure. New Journal of Physics, 2010, 12, 023034.	2.9	27
53	Pulsed laser deposition of porous N-carbon supported cobalt (oxide) thin films for highly efficient oxygen evolution. Chemical Communications, 2016, 52, 11947-11950.	4.1	27
54	Structure modulated charge transfer in carbon atomic wires. Scientific Reports, 2019, 9, 1648.	3.3	26

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55	A Hydrophobic Gold Surface Triggers Misfolding and Aggregation of the Amyloidogenic Josephin Domain in Monomeric Form, While Leaving the Oligomers Unaffected. PLoS ONE, 2013, 8, e58794.	2.5	24
56	Nanostructured Pd barrier for low methanol crossover DMFC. International Journal of Hydrogen Energy, 2014, 39, 2801-2811.	7.1	24
57	Scanning tunneling microscopy and Raman spectroscopy of polymeric spâ€“sp² carbon atomic wires synthesized on the Au(111) surface. Nanoscale, 2019, 11, 18191-18200.	5.6	24
58	Sensor Properties of Pristine and Functionalized Carbon Nanohorns. Electroanalysis, 2016, 28, 2489-2499.	2.9	23
59	Pulsed laser deposition of two-dimensional ZnO nanocrystals on Au(111): growth, surface structure and electronic properties. Nanotechnology, 2016, 27, 475703.	2.6	23
60	Microscopic Analysis of the Different Perchlorate Anions Intercalation Stages of Graphite. Journal of Physical Chemistry C, 2017, 121, 14246-14253.	3.1	23
61	Evolution of the graphite surface in phosphoric acid: an AFM and Raman study. Beilstein Journal of Nanotechnology, 2016, 7, 1878-1884.	2.8	22
62	Different W cluster deposition regimes in pulsed laser ablation observed by in situ scanning tunneling microscopy. Surface Science, 2007, 601, 1892-1897.	1.9	21
63	Simple Synthesis of Î±,Ï‰-Diarylpolyynes Part 1: Diphenylpolyynes. Journal of Macromolecular Science - Pure and Applied Chemistry, 2010, 47, 739-746.	2.2	21
64	Excitation Wavelength- and Medium-Dependent Photoluminescence of Reduced Nanostructured TiO₂ Films. Journal of Physical Chemistry C, 2019, 123, 11292-11303.	3.1	21
65	Controlling the Electrical Properties of Undoped and Taâ€Đoped TiO₂ Polycrystalline Films via Ultraâ€Fastâ€Annealing Treatments. Advanced Electronic Materials, 2016, 2, 1500316.	5.1	19
66	Designing All Graphdiyne Materials as Graphene Derivatives: Topologically Driven Modulation of Electronic Properties. Journal of Physical Chemistry C, 2021, 125, 18456-18466.	3.1	19
67	Integrated Au/TiO2 Nanostructured Photoanodes for Photoelectrochemical Organics Degradation. Catalysts, 2019, 9, 340.	3.5	18
68	A Field-Effect Transistor Based on Cumulenic sp-Carbon Atomic Wires. Journal of Physical Chemistry Letters, 2020, 11, 1970-1974.	4.6	18
69	Gas exposure and thermal stability of linear carbon chains in nanostructured carbon films investigated by in situ Raman spectroscopy. Carbon, 2004, 42, 1103-1106.	10.3	16
70	Strain effect on local electronic properties of Fe nanoislands grown on Au(111). Physical Review B, 2011, 83, .	3.2	16
71	Nanoscale Analysis of a Hierarchical Hybrid Solar Cell in 3D. Advanced Functional Materials, 2014, 24, 3043-3050.	14.9	16
72	Electrochemical Properties of Transparent Conducting Films of Tantalum-Doped Titanium Dioxide. Electrochimica Acta, 2017, 232, 44-53.	5.2	16

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73	Solvent-dependent termination, size and stability in polyynes synthesized via laser ablation in liquids. Physical Chemistry Chemical Physics, 2020, 22, 26312-26321.	2.8	16
74	Growth of multi-wall and single-wall carbon nanotubes with in situ high vacuum catalyst deposition. Carbon, 2004, 42, 440-443.	10.3	15
75	Nanoparticle-enhanced multifunctional nanocarbonsâ€"recent advances on electrochemical energy storage applications. Journal Physics D: Applied Physics, 2022, 55, 413001.	2.8	15
76	Nucleation and growth mechanisms of Fe on Au(111) in the sub-monolayer regime. Surface Science, 2012, 606, 702-710.	1.9	14
77	Nanostructured Ag4O4 thin films produced by ion beam oxidation of silver. Applied Surface Science, 2013, 266, 161-169.	6.1	14
78	Enhancing light harvesting by hierarchical functionally graded transparent conducting Al-doped ZnO nano- and mesoarchitectures. Solar Energy Materials and Solar Cells, 2014, 128, 248-253.	6.2	14
79	One-pot synthesis and characterization of polyynes end-capped by biphenyl groups (Î±,Ï‰-biphenylpolyynes). Carbon, 2018, 126, 232-240.	10.3	14
80	Structural, Electronic, and Vibrational Properties of a Two-Dimensional Graphdiyne-like Carbon Nanonetwork Synthesized on Au(111): Implications for the Engineering of sp-sp² Carbon Nanostructures. ACS Applied Nano Materials, 2020, 3, 12178-12187.	5.0	14
81	Highly Performing Al:ZnO Thin Films Grown by Pulsed Laser Deposition at Room Temperature. Nanoscience and Nanotechnology Letters, 2013, 5, 484-486.	0.4	13
82	Preparation and optimization of TiO2 photoanodes fabricated by pulsed laser deposition for photoelectrochemical water splitting. Journal of Solid State Electrochemistry, 2017, 21, 3139-3154.	2.5	13
83	Size-selected polyynes synthesised by submerged arc discharge in water. Chemical Physics Letters, 2020, 740, 137054.	2.6	13
84	Raman and IR spectra of graphdiyne nanoribbons. Physical Review Materials, 2020, 4, .	2.4	13
85	Island Organization of TiO2Hierarchical Nanostructures Induced by Surface Wetting and Drying. Langmuir, 2011, 27, 1935-1941.	3.5	12
86	Tuning electrical properties of hierarchically assembled Al-doped ZnO nanoforests by room temperature Pulsed Laser Deposition. Thin Solid Films, 2015, 594, 12-17.	1.8	12
87	Stable and Solutionâ€Processable Cumulenic spâ€Carbon Wires: A New Paradigm for Organic Electronics. Advanced Materials, 2022, 34, e2110468.	21.0	12
88	Photo-induced production of sp-hybridized carbon species from Ag-coated polytetrafluoroethylene (PTFE). Carbon, 2005, 43, 1337-1339.	10.3	11
89	Light management in TiO₂ thin films integrated with Au plasmonic nanoparticles. Semiconductor Science and Technology, 2020, 35, 035016.	2.0	11
90	Hydrophilic Character of Single-Layer MoS₂ Grown on Ag(111). Journal of Physical Chemistry C, 2021, 125, 9479-9485.	3.1	11

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91	Topology-dependent conjugation effects in graphdiyne molecular fragments. Carbon, 2021, 180, 265-273.	10.3	11
92	Vibrational and nonlinear optical properties of amine-capped push-pull polyynes by infrared and Raman spectroscopy. Carbon Trends, 2021, 5, 100115.	3.0	11
93	Inelastic light scattering from magnetically aligned single-walled carbon nanotubes and estimate of their two-dimensional Young's modulus. Diamond and Related Materials, 2003, 12, 806-810.	3.9	10
94	In situ STM of pulsed laser nanostructured deposits: First stages of film formation. Applied Surface Science, 2007, 253, 7917-7921.	6.1	10
95	Auâ^'Ag Template Stripped Pattern for Scanning Probe Investigations of DNA Arrays Produced by Dip Pen Nanolithography. Langmuir, 2008, 24, 13212-13217.	3.5	10
96	Energetic regimes and growth mechanisms of pulsed laser deposited Pd clusters on Au(111) investigated byin situscanning tunneling microscopy. Physical Review B, 2011, 84, .	3.2	10
97	Two-dimensional TiO _x nanostructures on Au(111): a scanning tunneling microscopy and spectroscopy investigation. 2D Materials, 2015, 2, 045011.	4.4	10
98	Self-assembly and electronic effects of Er₃N@C₈₀ and Sc₃N@C₈₀ on Au(111) and Ag/Si(111) surfaces. Journal of Physics: Conference Series, 2008, 100, 052080.	0.4	9
99	Inelastic light scattering: a multiscale characterization approach to vibrational, structural and thermo-mechanical properties of nanostructured materials. Applied Surface Science, 2004, 226, 271-281.	6.1	8
100	Temperature profoundly affects ataxin-3 fibrillogenesis. Biochimie, 2012, 94, 1026-1031.	2.6	8
101	In situ synthesis of polyynes in a polymer matrix via pulsed laser ablation in a liquid. Materials Advances, 2020, 1, 2729-2736.	5.4	8
102	Ultrafast spectroscopic imaging of exfoliated graphene. Physica Status Solidi (B): Basic Research, 2012, 249, 2497-2499.	1.5	7
103	Growth and electronic properties of Ti nanoislands on Au(111). Surface Science, 2014, 619, 77-82.	1.9	7
104	Chemical Bonds and Charge-Transfer Dynamics of a Dyeâ€"Hierarchical-TiO₂ Hybrid Interface. Journal of Physical Chemistry C, 2015, 119, 8671-8680.	3.1	7
105	In situ surface-enhanced Raman spectroscopy to investigate polyyne formation during pulsed laser ablation in liquid. Carbon, 2022, 189, 219-229.	10.3	7
106	Brillouin light scattering investigation of cluster-assembled carbon films: acoustic phonon propagation and elastic properties. Diamond and Related Materials, 2003, 12, 856-860.	3.9	6
107	Graphdiynes interacting with metal surfaces: first-principles electronic and vibrational properties. 2D Materials, 2021, 8, 044014.	4.4	6
108	Interface-Driven Assembly of Pentacene/MoS₂ Lateral Heterostructures. Journal of Physical Chemistry C, 2022, 126, 1132-1139.	3.1	6

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109	Vibrational properties of graphdiynes as 2D carbon materials beyond graphene. Physical Chemistry Chemical Physics, 2022, 24, 10524-10536.	2.8	6
110	Acoustic phonon propagation and elastic properties of nano-sized carbon films investigated by Brillouin light scattering. Thin Solid Films, 2002, 420-421, 300-305.	1.8	5
111	Tuning the photoelectrochemical properties of hierarchical TiO2 nanostructures by control of pulsed laser deposition and annealing in reducing conditions. International Journal of Hydrogen Energy, 2017, 42, 26639-26651.	7.1	5
112	Fingerprints of sp1 Hybridized C in the Near-Edge X-ray Absorption Spectra of Surface-Grown Materials. Materials, 2018, 11, 2556.	2.9	5
113	Identifying Efficient Cooling Approach of Cylindrical Lithiumâ€Ion Batteries. Energy Technology, 2022, 10, 2100888.	3.8	5
114	Structural evolution of crystalline polymer latex films: Propagating and confined acoustic modes. Applied Physics Letters, 2003, 82, 1532-1534.	3.3	4
115	Pulsed Laser Deposition of Silicon Nanostructures. Materials Research Society Symposia Proceedings, 2011, 1322, 141.	0.1	4
116	Fabrication of Nano-engineered Transparent Conducting Oxides by Pulsed Laser Deposition. Journal of Visualized Experiments, 2013, , e50297.	0.3	4
117	Electronic and magnetic properties of bulk Cr tips for scanning tunneling spectroscopy. Physical Review B, 2013, 87, .	3.2	4
118	Tuning Hierarchical Cluster Assembly in Pulsed Laser Deposition of Al-doped ZnO. Materials Research Society Symposia Proceedings, 2013, 1497, 1.	0.1	2
119	Morphology-driven electrical and optical properties in graded hierarchical transparent conducting Al:ZnO. Materials Research Society Symposia Proceedings, 2014, 1699, 13.	0.1	2
120	Steric hindrance in the on-surface synthesis of diethynyl-linked anthracene polymers. Physical Chemistry Chemical Physics, 2022, 24, 13616-13624.	2.8	2
121	Note: Fabrication and characterization of molybdenum tips for scanning tunneling microscopy and spectroscopy. Review of Scientific Instruments, 2015, 86, 016112.	1.3	1
122	Assembly and Soldering Procedure of Nonstabilized YBCO Coils for 1000 A SFCL. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.7	1
123	Nanostructured TiO2 Thin Films for Phosphoproteomics Studies with MALDI Mass Spectrometry. Methods in Molecular Biology, 2011, 790, 173-181.	0.9	1
124	Structural evolution and acoustic phonon behavior in crystalline PTFE latex films. Materials Research Society Symposia Proceedings, 2003, 779, 781.	0.1	0
125	Inelastic light scattering for the investigations of nano- and meso-structures. European Physical Journal Special Topics, 2005, 129, 3-9.	0.2	0
126	Pulsed Laser Deposition of Cluster-Assembled Thin Films with Controlled Nanostructure. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0

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127	Nanoscale and Mesoscale Properties of Nanostructured Carbon Films. Fullerenes Nanotubes and Carbon Nanostructures, 2005, 13, 199-210.	2.1	0
128	Elastic and Structural Properties of Carbon Materials Investigated by Brillouin Light Scattering. , 0, , 153-174.		0
129	Biosensors and Molecular Imaging. IEEE Pulse, 2011, 2, 35-40.	0.3	0
130	Pulsed Laser Deposition and In Situ Scanning Tunneling Microscopy of Pd clusters supported on alumina. Materials Research Society Symposia Proceedings, 2011, 1351, 116701.	0.1	0
131	CARBON ATOMIC WIRES: FROM STARS TO NANOTECHNOLOGY. Istituto Lombardo - Accademia Di Scienze E Lettere - Rendiconti Di Scienze, 2012, , .	0.0	0
132	Fe nanoparticles on ZnSe: Reversible temperature dependence of the surface barrier potential. Physical Review B, 2012, 85, .	3.2	0