Gennaro Chiarello

List of Publications by Year
in descending order

103 papers	3,259 citations	126708 33 h-index	189595 50 g-index
103 all docs	103 docs citations	103 times ranked	3266 citing authors

#	Article	IF	Citations
1	Plasmon modes in graphene: status and prospect. Nanoscale, 2014, 6, 10927-10940.	2.8	161
2	Probing the Youngâ€™s modulus and Poissonâ€™s ratio in graphene/metal interfaces and graphite: a comparative study. Nano Research, 2015, 8, 1847-1856.	5.8	130
3	3D Dirac Plasmons in the Type-II Dirac Semimetal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>PtTe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn> Physical Review Letters, 2018, 121, 086804.	2.9	95
4	The influence of chemical reactivity of surface defects on ambient-stable InSe-based nanodevices. Nanoscale, 2016, 8, 8474-8479.	2.8	92
5	Elastic properties of a macroscopic graphene sample from phonon dispersion measurements. Carbon, 2012, 50, 4903-4910.	5.4	91
6	Interplay of Surface and Dirac Plasmons in Topological Insulators: The Case of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Bi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mm Physical Review Letters, 2015, 115, 216802.	2.9	87
7	Reflection electron-energy-loss investigation of the electronic and structural properties of palladium. Physical Review B, 1984, 29, 4878-4889.	1.1	81
8	When plasmonics meets membrane technology. Journal of Physics Condensed Matter, 2016, 28, 363003.	0.7	75
9	Extended ELS fine structures above the M2,3 edges of Cu and Ni. Solid State Communications, 1981, 40, 613-617.	0.9	72
10	Observation of carboxylic groups in the lattice of sinteredBa2YCu3O7â^’yhigh-Tcsuperconductors. Physical Review B, 1987, 36, 7148-7150.	1.1	70
11	Tailoring the Surface Chemical Reactivity of Transitionâ€Metal Dichalcogenide PtTe₂ Crystals. Advanced Functional Materials, 2018, 28, 1706504.	7.8	68
12	Unveiling the Mechanisms Leading to H₂ Production Promoted by Water Decomposition on Epitaxial Graphene at Room Temperature. ACS Nano, 2016, 10, 4543-4549.	7.3	60
13	Local structure ofc(2Ã—2)-Na on Al(001): Experimental evidence for the coexistence of intermixing and on-surface adsorption. Physical Review B, 1994, 50, 14516-14524.	1.1	59
14	Dispersion and Damping of Gold Surface Plasmon. Plasmonics, 2008, 3, 165-170.	1.8	57
15	Vibrational spectroscopy and theory of alkali metal adsorption and co-adsorption on single-crystal surfaces. Surface Science Reports, 2013, 68, 305-389.	3.8	57
16	Liquid-Phase Exfoliated GeSe Nanoflakes for Photoelectrochemical-Type Photodetectors and Photoelectrochemical Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 48598-48613.	4.0	56
17	The Advent of Indium Selenide: Synthesis, Electronic Properties, Ambient Stability and Applications. Nanomaterials, 2017, 7, 372.	1.9	50
18	The influence of electron confinement, quantum size effects, and film morphology on the dispersion and the damping of plasmonic modes in Ag and Au thin films. Progress in Surface Science, 2015, 90, 144-193.	3.8	48

#	Article	IF	Citations
19	Extended energy loss fine structure measurement above shallow and deep core levels of 3d transition metals. Journal of Physics C: Solid State Physics, 1985, 18, 3595-3614.	1.5	44
20	Surface-plasmon dispersion and multipole surface plasmons in Al(111). Physical Review B, 2000, 62, 12676-12679.	1.1	43
21	Plasmon spectroscopy of graphene and other two-dimensional materials with transmission electron microscopy. Materials Science in Semiconductor Processing, 2017, 65, 88-99.	1.9	40
22	Toward the Effective Exploitation of Topological Phases of Matter in Catalysis: Chemical Reactions at the Surfaces of NbAs and TaAs Weyl Semimetals. Advanced Functional Materials, 2018, 28, 1800511.	7.8	40
23	Penning ionization electron spectroscopy, UPS and TPD of NCCN on Pd(100). Surface Science, 1986, 178, 667-678.	0.8	39
24	Unravelling suitable grapheneâ€“metal contacts for graphene-based plasmonic devices. Nanoscale, 2013, 5, 8215.	2.8	39
25	Vanadium oxide catalysts supported on laser-synthesized titania powders: Characterization and catalytic activity in the selective reduction of nitric oxide. Applied Catalysis B: Environmental, 1992, 1, 61-77.	10.8	38
26	Evidence of Kohn anomalies in quasi-freestanding graphene on Pt(1 1 1). Carbon, 2012, 50, 734-736.	5.4	36
27	Extended fine structures above TiL2,3edge: A comparison between reflection energy loss and extended x-ray-absorption fine-structure results. Physical Review B, 1984, 29, 3730-3732.	1.1	35
28	A spectro-microscopic investigation of Feâ€“Co bimetallic catalysts supported on MgO for the production of thin carbon nanotubes. Carbon, 2010, 48, 3434-3445.	5.4	35
29	Vibrational Investigation of Catalyst Surfaces: Change of the Adsorption Site of CO Molecules upon Coadsorption. Journal of Physical Chemistry C, 2011, 115, 13541-13553.	1.5	35
30	Phonon dispersion of quasi-freestanding graphene on Pt(111). Journal of Physics Condensed Matter, 2012, 24, 104025.	0.7	35
31	Quadratic Dispersion and Damping Processes of Ï€ Plasmon in Monolayer Graphene on Pt(111). Plasmonics, 2012, 7, 369-376.	1.8	35
32	Quenching of plasmons modes in air-exposed graphene-Ru contacts for plasmonic devices. Applied Physics Letters, 2013, 102, .	1.5	35
33	Radial distribution functions of Cu and Ni by reflection energy loss spectroscopy. Surface Science, 1982, 117, 525-532.	0.8	34
34	Hydrogen bonding at the water/quasi-freestanding graphene interface. Carbon, 2011, 49, 5180-5184.	5.4	34
35	Spectroscopic characterization of graphene films grown on Pt(111) surface by chemical vapor deposition of ethylene. Journal of Raman Spectroscopy, 2013, 44, 1393-1397.	1.2	34
36	Secondary-electron emission and electron-energy-loss results on graphite single crystals. Physical Review B, 1986, 34, 6080-6084.	1.1	33

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37	Surface carboxylate species on Cu(100) studied by angle-scanned photoelectron diffraction and LCAO-LDF calculations. Surface Science, 1994, 315, 309-322.	0.8	32
38	High resolution electron energy loss measurements of Naâˆ•Cu(111) and H2Oâˆ•Naâˆ•Cu(111): Dependence of water reactivity as a function of Na coverage. Journal of Chemical Physics, 2007, 126, 244712.	1.2	32
39	The role of surface chemical reactivity in the stability of electronic nanodevices based on two-dimensional materials â€œbeyond grapheneâ€•and topological insulators. FlatChem, 2017, 1, 60-64.	2.8	32
40	XPS and AFM characterization of a vanadium oxide film on TiO2(100) surface. Applied Surface Science, 1996, 99, 15-19.	3.1	30
41	Surface extended energy loss fine structure and local spin density investigation of carbidic carbon on the Ni(100) surface. Surface Science, 1988, 202, L621-L626.	0.8	29
42	A photoelectron spectroscopy study of sub-monolayer interfaces annealed from 300 up to 623 K. Surface Science, 1997, 380, 311-323.	0.8	29
43	Emergence of an Out-of-Plane Optical Phonon (ZO) Kohn Anomaly in Quasifreestanding Epitaxial Graphene. Physical Review Letters, 2015, 115, 075504.	2.9	29
44	Shortâ€Range Interactions in Na Coadsorption with CO and O on Ni(111). ChemPhysChem, 2008, 9, 1189-1194.	1.0	28
45	Interband plasmons in supported graphene on metal substrates: Theory and experiments. Carbon, 2016, 96, 91-97.	5.4	28
46	Structural study of iron and carbidic iron by surface extended energy loss spectroscopy. Surface Science, 1984, 136, 555-570.	0.8	27
47	Electronic properties of self-assembled quantum dots of sodium on Cu(111) and their interaction with water. Surface Science, 2007, 601, 2656-2659.	0.8	27
48	COLLECTIVE ELECTRONIC EXCITATIONS IN SYSTEMS EXHIBITING QUANTUM WELL STATES. Surface Review and Letters, 2009, 16, 171-190.	0.5	27
49	Exploring the Surface Chemical Reactivity of Single Crystals of Binary and Ternary Bismuth Chalcogenides. Journal of Physical Chemistry C, 2014, 118, 21517-21522.	1.5	27
50	Electronic properties of Fe80B20alloys: ordering and disordering effects. Journal of Physics F: Metal Physics, 1983, 13, 895-907.	1.6	26
51	An X-ray photoelectron spectroscopy study of the vanadia-titania catalysts. Applied Surface Science, 1993, 64, 91-96.	3.1	26
52	Dispersion and damping of the interband Ï€ plasmon in graphene grown on Cu(111) foils. Carbon, 2017, 114, 70-76.	5.4	25
53	Tunable surface plasmons in Weyl semimetals TaAs and NbAs. Physical Review B, 2019, 99, .	1.1	25
54	Surface extended energy loss fine structures above the K-edge of oxygen on Al. Solid State Communications, 1982, 44, 845-847.	0.9	24

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55	Corbonaceous layers on Ni (110) and (100) studied by AES and eels. Surface Science, 1985, 162, 259-263.	0.8	24
56	Collective Excitations in Nanoscale Thin Alkali Films: Na/Cu(111). Journal of Nanoscience and Nanotechnology, 2009, 9, 3932-3937.	0.9	24
57	Electronic properties of gold thin films studied by electron energy loss spectroscopy. Gold Bulletin, 2009, 42, 195-200.	3.2	24
58	Evidence of confinement of the Ï€ plasmon in periodically rippled graphene on Ru(0001). Physical Chemistry Chemical Physics, 2013, 15, 11356.	1.3	24
59	Alkali adsorption on Ni(111) and their coadsorption with CO and O. Applied Surface Science, 2008, 254, 6854-6859.	3.1	23
60	Alkali-promoted CO dissociation on Cu(111) and Ni(111) at room temperature. Journal of Chemical Physics, 2008, 129, 164703.	1.2	23
61	Periodically rippled graphene on Ru(0001): A template for site-selective adsorption of hydrogen dimers via water splitting and hydrogen-spillover at room temperature. Carbon, 2013, 61, 412-417.	5.4	23
62	Extended fine structures in autoionization emission spectra of bulk chromium. Physical Review B, 1987, 35, 5311-5314.	1.1	22
63	Evidence of composite plasmonâ€“phonon modes in the electronic response of epitaxial graphene. Journal of Physics Condensed Matter, 2013, 25, 345303.	0.7	22
64	Emergence of a nonlinear plasmon in the electronic response of doped graphene. Carbon, 2014, 71, 176-180.	5.4	21
65	Symmetries and selection rules in the measurement of the phonon spectrum of graphene and related materials. Carbon, 2015, 85, 225-232.	5.4	21
66	Chemical Reactions at Clean and Alkali-Doped Mismatched Metal/Metal Interfaces. Journal of Physical Chemistry C, 2009, 113, 316-320.	1.5	20
67	Nature of the Alkali Surface Bond at Low Coverages Investigated by Vibrational Measurements. Journal of Physical Chemistry C, 2008, 112, 6977-6980.	1.5	19
68	Enhancement of hydrolysis in alkali ultrathin layers on metal substrates in the presence of electron confinement. Chemical Physics Letters, 2010, 494, 84-87.	1.2	18
69	Substrate-dependent plasmonic properties of supported graphene. Surface Science, 2015, 634, 76-80.	0.8	18
70	Anisotropic ultraviolet-plasmon dispersion in black phosphorus. Nanoscale, 2018, 10, 21918-21927.	2.8	18
71	Broadband excitation spectrum of bulk crystals and thin layers of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PtTe</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2019, 99, .	1.1	18
72	Dispersion and damping of surface plasmon in Ag thin films grown on Cu(111) and Ni(111). Superlattices and Microstructures, 2009, 46, 137-140.	1.4	17

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73	Annealing effects on the plasmonic excitations of metal/metal interfaces. Applied Surface Science, 2009, 255, 6038-6042.	3.1	17
74	The adsorption and co-adsorption of oxygen and carbon monoxide on Pt3Ni(111): A vibrational study. Journal of Chemical Physics, 2011, 134, 224705.	1.2	17
75	Co-adsorption of oxygen and carbon monoxide on Ni(111). Surface Science, 2003, 536, 33-44.	0.8	16
76	Electronic properties of metallic bilayers deposited on Cu(111): A comparative study. Surface Science, 2009, 603, 933-937.	0.8	16
77	Damping of the surface plasmon in clean and K-modified Ag thin films. Journal of Electron Spectroscopy and Related Phenomena, 2009, 173, 12-17.	0.8	16
78	Plasmonic Modes Confined in Nanoscale Thin Silver Films Deposited onto Metallic Substrates. Journal of Nanoscience and Nanotechnology, 2010, 10, 1313-1321.	0.9	16
79	Cutting a Gordian Knot: Dispersion of plasmonic modes in Bi2Se3 topological insulator. Applied Physics Letters, 2017, 110, .	1.5	16
80	Temperature effects on alkali-promoted CO dissociation on Ni(111). Surface Science, 2008, 602, 2096-2100.	0.8	15
81	Unusually strong lateral interaction in the CO overlayer in phosphorene-based systems. Nano Research, 2016, 9, 2598-2605.	5.8	15
82	Mechanisms Leading to Alkali Oxidation on Metal Surfaces. Journal of Physical Chemistry C, 2008, 112, 17772-17774.	1.5	14
83	Electronic and vibrational excitations in carbon nanotubes. Carbon, 2003, 41, 985-992.	5.4	13
84	Surface Reconstruction, Oxidation Mechanism, and Stability of Cd₃As₂. Advanced Functional Materials, 2019, 29, 1900965.	7.8	13
85	Electronic, chemical and structural characterization of CNTs grown by acetylene decomposition over MgO supported Feâ€“Co bimetallic catalysts. Surface Science, 2007, 601, 2823-2827.	0.8	12
86	Azimuthal orientation of formate and acetate on Cu(100) studied by angle-scanned photoelectron diffraction. Surface Science, 1993, 291, L756-L758.	0.8	11
87	Effect of moirÃ© superlattice reconstruction in the electronic excitation spectrum of graphene-metal heterostructures. 2D Materials, 2017, 4, 021001.	2.0	11
88	Graphene on Pt ₃ Ni(1â€‰1â€‰1): a suitable platform for tunable charge doping, electronâ€“phonon coupling and plasmonic excitations. 2D Materials, 2017, 4, 035003.	2.0	11
89	Carbon monoxide interaction with oxygenated nickel single-crystal surfaces studied by vibrational spectroscopy. Vibrational Spectroscopy, 2011, 55, 295-299.	1.2	9
90	Collective Electronic Excitations in Thin Ag Films on Ni(111). Plasmonics, 2013, 8, 1683-1690.	1.8	9

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91	Plasmonic Modes in Thin Films: Quo Vadis?. Frontiers in Materials, 2014, 1, .	1.2	9
92	The nature of free O-H stretching in water adsorbed on carbon nanosystems. Journal of Chemical Physics, 2013, 139, 064704.	1.2	8
93	Low-energy bulk plasmon of nickel. Solid State Sciences, 2010, 12, 2096-2099.	1.5	6
94	On the intercalation of CO molecules in ultra-high vacuum conditions underneath graphene epitaxially grown on metal substrates. Carbon, 2013, 62, 263-269.	5.4	6
95	Ice formation on clean and alkali-doped quasi-freestanding graphene: A vibrational investigation. Carbon, 2015, 93, 242-249.	5.4	6
96	Surface Instability and Chemical Reactivity of ZrSiS and ZrSiSe Nodalâ€Line Semimetals. Advanced Functional Materials, 2019, 29, 1900438.	7.8	6
97	O2 dissociation in Na-modified gold ultrathin layer on Cu(111). Gold Bulletin, 2010, 43, 267-274.	3.2	5
98	Unveiling the Oxidation Processes of Pt₃Ni(1â€‰1â€‰1) by Realâ€Time Surface Coreâ€Level Spectroscopy. ChemCatChem, 2016, 8, 713-718.	1.8	4
99	Insight on Thermally Activated Hydrocarbon Dehydrogenation on the Pt₃Ni(111) Surface: From Adsorbed Hydrocarbons up to Graphene Formation. Journal of Physical Chemistry C, 2018, 122, 3885-3892.	1.5	4
100	Sequestration of carbon monoxide at room temperature at vacancy sites of graphene. Chemical Communications, 2019, 55, 8607-8610.	2.2	2
101	Influence of Electron Quantum Confinement on the Electronic Response of Metal/Metal Interfaces. International Journal of Behavioral and Consultation Therapy, 2012, , 69-104.	0.4	1
102	Anomalous lattice vibrations in self-nanostructured graphene on Ru(0001). Surface Science, 2018, 678, 5-10.	0.8	0
103	Collective Excitations in Monolayer Graphene on Metals: Phonons and Plasmons. Carbon Materials, 2015, , 33-66.	0.2	0