Nicola Ferralis

List of Publications by Year
in descending order

47	1,857	279798 23	254184 43
papers	citations	h-index	g-index

47	47	47	3020
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electronic, Structural, and Magnetic Upgrading of Coal-Based Products through Laser Annealing. ACS Nano, 2022, 16, 2101-2109.	14.6	9
2	Upgrading carbonaceous materials: Coal, tar, pitch, and beyond. Matter, 2022, 5, 430-447.	10.0	24
3	Atoms to fibers: Identifying novel processing methods in the synthesis of pitch-based carbon fibers. Science Advances, 2022, 8, eabn1905.	10.3	12
4	Highly Conductive and Permeable Nanocomposite Ultrafiltration Membranes Using Laser-Reduced Graphene Oxide. Nano Letters, 2021, 21, 2429-2435.	9.1	26
5	Carbon fiber synthesis from pitch: Insights from ReaxFF based molecular dynamics simulations. Carbon, 2021, 176, 569-579.	10.3	17
6	Passive Sub-Ambient Cooling from a Transparent Evaporation-Insulation Bilayer. Joule, 2020, 4, 2693-2701.	24.0	44
7	Laser-Induced Tar-Mediated Sintering of Metals and Refractory Carbides in Air. ACS Nano, 2020, 14, 10413-10420.	14.6	9
8	Laser-engineered heavy hydrocarbons: Old materials with new opportunities. Science Advances, 2020, 6, eaaz5231.	10.3	40
9	Structural evolutions of small aromatic mixtures under extreme temperature conditions: Insights from ReaxFF molecular dynamics investigations. Carbon, 2019, 155, 309-319.	10.3	10
10	Charge Transport in Highly Heterogeneous Natural Carbonaceous Materials. Advanced Functional Materials, 2019, 29, 1904283.	14.9	5
11	Natural Carbon Byâ€Products for Transparent Heaters: The Case of Steamâ€Cracker Tar. Advanced Materials, 2019, 31, e1900331.	21.0	13
12	Organo-mineral associations in chert of the 3.5 Ga Mount Ada Basalt raise questions about the origin of organic matter in Paleoarchean hydrothermally influenced sediments. Scientific Reports, 2019, 9, 16712.	3.3	13
13	Strain-induced accelerated asymmetric spatial degradation of polymeric vascular scaffolds. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2640-2645.	7.1	46
14	Spatially-resolved isotopic study of carbon trapped in â^¼3.43â€¯Ga Strelley Pool Formation stromatolites. Geochimica Et Cosmochimica Acta, 2018, 223, 21-35.	3.9	26
15	Process Control of Atomic Layer Deposition Molybdenum Oxide Nucleation and Sulfidation to Large-Area MoS₂ Monolayers. Chemistry of Materials, 2017, 29, 2024-2032.	6.7	47
16	Rethinking Coal: Thin Films of Solution Processed Natural Carbon Nanoparticles for Electronic Devices. Nano Letters, 2016, 16, 2951-2957.	9.1	39
17	Rapid, direct and non-destructive assessment of fossil organic matter via microRaman spectroscopy. Carbon, 2016, 108, 440-449.	10.3	118
18	Catalyst Self-Assembly for Scalable Patterning of Sub 10 nm Ultrahigh Aspect Ratio Nanopores in Silicon. ACS Applied Materials & Interfaces, 2016, 8, 8043-8049.	8.0	18

#	Article	IF	Citations
19	Genome-inspired molecular identification in organic matter via Raman spectroscopy. Carbon, 2016, 101, 361-367.	10.3	24
20	Unintended consequences: Why carbonation can dominate in microscale hydration of calcium silicates. Journal of Materials Research, 2015, 30, 2425-2433.	2.6	1
21	Direct correlation between aromatization of carbon-rich organic matter and its visible electronic absorption edge. Carbon, 2015, 88, 139-147.	10.3	17
22	Acid demineralization with critical point drying: A method for kerogen isolation that preserves microstructure. Fuel, 2014, 135, 492-497.	6.4	43
23	Effect of Electrochemical Charging on Elastoplastic Properties and Fracture Toughness of Li_XCoO₂. Journal of the Electrochemical Society, 2014, 161, F3084-F3090.	2.9	68
24	Evolution of interfacial intercalation chemistry on epitaxial graphene/SiC by surface enhanced Raman spectroscopy. Applied Surface Science, 2014, 320, 441-447.	6.1	11
25	Templated assembly of photoswitches significantly increases the energy-storage capacity of solar thermal fuels. Nature Chemistry, 2014, 6, 441-447.	13.6	261
26	Nanocarbon-Based Photovoltaics. ACS Nano, 2012, 6, 8896-8903.	14.6	117
27	Solar energy generation in three dimensions. Energy and Environmental Science, 2012, 5, 6880.	30.8	73
28	Growth of Epitaxial 3C-SiC Films on Si(100) via Low Temperature SiC Buffer Layer. Crystal Growth and Design, 2010, 10, 36-39.	3.0	32
29	Tunable in situ growth of porous cubic silicon carbide thin films via methyltrichlorosilane-based chemical vapor deposition. Applied Physics Letters, 2009, 95, 101901.	3.3	5
30	Real-Time Observation of Reactive Spreading of Gold on Silicon. Physical Review Letters, 2009, 103, 256102.	7.8	19
31	Experimental Investigation of Silicon Surface Migration in Low Pressure Nonreducing Gas Environments. Electrochemical and Solid-State Letters, 2009, 12, H437.	2.2	12
32	Resolving sub-nm steps with a low-voltage miniature scanning electron microscope. Microelectronic Engineering, 2009, 86, 1004-1008.	2.4	3
33	Debye temperature of the 10-fold d-Alâ€“Niâ€“Co quasicrystal surface. Surface Science, 2008, 602, 1223-1226.	1.9	1
34	Evidence of Structural Strain in Epitaxial Graphene Layers on 6H-SiC(0001). Physical Review Letters, 2008, 101, 156801.	7.8	274
35	Growth of branching Si nanowires seeded by Auâ€“Si surface migration. Journal of Materials Chemistry, 2008, 18, 5376.	6.7	54
36	Temperature-Induced Self-Pinning and Nanolayering of AuSi Eutectic Droplets. Journal of the American Chemical Society, 2008, 130, 2681-2685.	13.7	50

#	Article	IF	Citations
37	Evolution in surface morphology of epitaxial graphene layers on SiC induced by controlled structural strain. Applied Physics Letters, 2008, 93, 191916.	3.3	20
38	Al-2 % Si Induced Crystallization of Amorphous Silicon. Electrochemical and Solid-State Letters, 2007, 10, H337-H339.	2.2	1
39	Structure and Morphology of Annealed Gold Films Galvanically Displaced on the Si(111) Surface. Journal of Physical Chemistry C, 2007, 111, 7508-7513.	3.1	31
40	Substitutional adsorption geometry for Pb(111)â€“(âˆš3Ã—âˆš3)R30Â°â€“K. Surface Science, 2006, 600, 537-541.	1.9	6
41	Evolution of Topological Order in Xe Films on a Quasicrystal Surface. Physical Review Letters, 2005, 95, 136104.	7.8	40
42	The adsorption of Xe and Ar on quasicrystalline Alâ€“Niâ€“Co. Journal of Physics Condensed Matter, 2004, 16, S2911-S2921.	1.8	21
43	Dynamical low-energy electron diffraction study of graphite (0001)-(âˆš3Ã—âˆš3)R30Â°-Xe. Surface Science, 2004, 548, 157-162.	1.9	30
44	The adsorption sites of rare gases on metallic surfaces: a review. Journal of Physics Condensed Matter, 2004, 16, S2839-S2862.	1.8	67
45	Diffraction from one- and two-dimensional quasicrystalline gratings. American Journal of Physics, 2004, 72, 1241-1246.	0.7	23
46	Low-energy electron diffraction from quasicrystal surfaces. Journal of Physics Condensed Matter, 2003, 15, R63-R81.	1.8	35
47	LEED study of the potassium-induced reconstruction of Cu(110). Journal of Physics Condensed Matter, 2001, 13, 3961-3967.	1.8	2