Francesco Geobaldo

List of Publications by Year
in descending order

125 papers	7,223 citations	43973 48 h-index	58464 82 g-index
125 all docs	125 docs citations	125 times ranked	7452 citing authors

#	Article	IF	Citations
1	Structure and Reactivity of Framework and Extraframework Iron in Fe-Silicalite as Investigated by Spectroscopic and Physicochemical Methods. Journal of Catalysis, 1996, 158, 486-501.	3.1	604
2	DRS UV-Vis and EPR spectroscopy of hydroperoxo and superoxo complexes in titanium silicalite. Catalysis Letters, 1992, 16, 109-115.	1.4	352
3	XAFS, IR, and UVâˆ'Vis Study of the CuIEnvironment in CuI-ZSM-5. Journal of Physical Chemistry B, 1997, 101, 344-360.	1.2	345
4	Fourier-transform infrared and Raman spectra of pure and Al-, B-, Ti- and Fe-substituted silicalites: stretching-mode region. Journal of the Chemical Society, Faraday Transactions, 1993, 89, 4123.	1.7	277
5	Evidence of the Presence of Two Different Framework Ti(IV) Species in Tiâˆ'Silicalite-1 in Vacuo Conditions:Â an EXAFS and a Photoluminescence Study. Journal of Physical Chemistry B, 1998, 102, 6382-6390.	1.2	183
6	Synthesis, characterization, and photocatalytic application of novel TiO2 nanoparticles. Chemical Engineering Journal, 2010, 157, 45-51.	6.6	183
7	FTIR Investigation of the Formation of Neutral and Ionic Hydrogen-Bonded Complexes by Interaction of H-ZSM-5 and H-Mordenite with CH3CN and H2O:Â Comparison with the H-NAFION Superacidic System. The Journal of Physical Chemistry, 1996, 100, 16584-16599.	2.9	165
8	Fourier-Transform Infrared Study of CO Adsorbed at 77 K on H-Mordenite and Alkali-Metal-Exchanged Mordenites. Langmuir, 1995, 11, 527-533.	1.6	158
9	Polylactic Acid and Polylactic Acid-Based Nanocomposite Photooxidation. Biomacromolecules, 2010, 11, 2919-2926.	2.6	144
10	Methane combustion on Mg-doped LaMnO3 perovskite catalysts. Applied Catalysis B: Environmental, 1999, 20, 277-288.	10.8	141
11	IR studies of CO and NO adsorbed on well characterized oxide single microcrystals. Catalysis Today, 1996, 27, 403-435.	2.2	127
12	NO2 monitoring at room temperature by a porous silicon gas sensor. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 69-70, 210-214.	1.7	126
13	The vibrational spectroscopy of H2, N2, CO and NO adsorbed on the titanosilicate molecular sieve ETS-10. Physical Chemistry Chemical Physics, 1999, 1, 1649-1657.	1.3	121
14	N2 Adsorption at 77 K on H-Mordenite and Alkali-Metal-Exchanged Mordenites: An IR Study. The Journal of Physical Chemistry, 1995, 99, 11167-11177.	2.9	120
15	PEO/LAGP hybrid solid polymer electrolytes for ambient temperature lithium batteries by solvent-free, â€œone potâ€•preparation. Journal of Energy Storage, 2019, 26, 100947.	3.9	117
16	IR spectroscopy of neutral and ionic hydrogen-bonded complexes formed upon interaction of CH3OH, C2H5OH, (CH3)2O, (C2H5)2O and C4H8O with H-Y, H-ZSM-5 and H-mordenite: comparison with analogous adducts formed on the H-Nafion superacidic membrane. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 4863-4875.	1.7	115
17	Nanoporous carbon materials obtained by sucrose carbonization in the presence of KOH. Microporous and Mesoporous Materials, 2010, 132, 414-420.	2.2	110
18	Concentration quenching in an Er-doped phosphate glass for compact optical lasers and amplifiers. Journal of Alloys and Compounds, 2016, 657, 678-683.	2.8	105

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19	Determination of the geographical origin of green coffee beans using NIR spectroscopy and multivariate data analysis. Food Control, 2019, 99, 137-145.	2.8	102
20	Stretching frequencies of cationâ€CO adducts in alkaliâ€metal exchanged zeolites: An elementary electrostatic approach. Journal of Chemical Physics, 1995, 103, 3158-3165.	1.2	98
21	Room temperature ammonia sensors based on zinc oxide and functionalized graphite and multi-walled carbon nanotubes. Sensors and Actuators B: Chemical, 2011, 152, 144-154.	4.0	98
22	Formation of Culâ€”N2adducts at 298 and 77 K in CuI-ZSM-5: an FTIR investigation. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3285-3290.	1.7	95
23	XANES, EXAFS and FTIR characterization of copper-exchanged mordenite. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 1519-1525.	1.7	92
24	Propene oligomerization on H-mordenite: Hydrogen-bonding interaction, chain initiation, propagation and hydrogen transfer studied by temperature-programmed FTIR and UVâ€“VIS spectroscopies. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 1243-1249.	1.7	90
25	Study of Porous Silicon Nanostructures as Hydrogen Reservoirs. Journal of Physical Chemistry B, 2005, 109, 19711-19718.	1.2	80
26	A simple route toward next-gen green energy storage concept by nanofibres-based self-supporting electrodes and a solid polymeric design. Carbon, 2016, 107, 811-822.	5.4	80
27	Porous silicon as efficient surface enhanced Raman scattering (SERS) substrate. Applied Surface Science, 2008, 254, 7494-7497.	3.1	78
28	Photocatalytic Degradation of Ethylene Emitted by Fruits with TiO₂ Nanoparticles. Industrial & Engineering Chemistry Research, 2011, 50, 2536-2543.	1.8	78
29	Simultaneous determination by NIR spectroscopy of the roasting degree and Arabica/Robusta ratio in roasted and ground coffee. Food Control, 2016, 59, 683-689.	2.8	73
30	Discrimination between washed Arabica, natural Arabica and Robusta coffees by using near infrared spectroscopy, electronic nose and electronic tongue analysis. Journal of the Science of Food and Agriculture, 2015, 95, 2192-2200.	1.7	71
31	SERS active Ag nanoparticles in mesoporous silicon: detection of organic molecules and peptideâ€“antibody assays. Journal of Raman Spectroscopy, 2012, 43, 730-736.	1.2	70
32	Infrared studies of the interaction of carbon monoxide and dinitrogen with ferrisilicate MFI-type zeolites. Catalysis Letters, 1996, 42, 25-33.	1.4	69
33	Properties of poly(lactic acid) nanocomposites based on montmorillonite, sepiolite and zirconium phosphonate. EXPRESS Polymer Letters, 2012, 6, 914-926.	1.1	69
34	Coupling of surface waves in highly defined one-dimensional porous silicon photonic crystals for gas sensing applications. Applied Physics Letters, 2007, 91, .	1.5	66
35	FTIR investigation of the interaction at 77 K of diatomic molecular probes on MCM-22 zeolite. Microporous and Mesoporous Materials, 1999, 30, 119-127.	2.2	65
36	Silver Nanoparticles on Porous Silicon: Approaching Single Molecule Detection in Resonant SERS Regime. Journal of Physical Chemistry C, 2013, 117, 20139-20145.	1.5	63

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37	Ammoximation of Cyclohexanone on Titanium Silicalite: Investigation of the Reaction Mechanism. Studies in Surface Science and Catalysis, 1993, 75, 719-729.	1.5	60
38	Chitosan-functionalized porous silicon optical transducer for the detection ofcarboxylic acid-containing drugs in water. Journal of Materials Chemistry, 2011, 21, 2294-2302.	6.7	59
39	Evidence of stable hydroxyl radicals and other oxygen radical species generated by interaction of hydrogen peroxide with magnesium oxide. The Journal of Physical Chemistry, 1993, 97, 5735-5740.	2.9	57
40	IR study of the acidity of ITQ-2, an â€œall-surfaceâ€•zeolitic system. Journal of Catalysis, 2003, 214, 191-199.	3.1	57
41	SERS-Active Ag Nanoparticles on Porous Silicon and PDMS Substrates: A Comparative Study of Uniformity and Raman Efficiency. Journal of Physical Chemistry C, 2016, 120, 16946-16953.	1.5	57
42	Local environment of Boron impurities in porous silicon and their interaction withNO2molecules. Physical Review B, 2001, 64, .	1.1	54
43	Sensing CO2 in a chemically modified porous silicon film. Physica Status Solidi A, 2003, 197, 365-369.	1.7	54
44	Fast optical vapour sensing by Bloch surface waves on porous siliconmembranes. Physical Chemistry Chemical Physics, 2010, 12, 502-506.	1.3	52
45	A Nanostructured Porous Silicon Near Insulator Becomes Either a p- or an n-Type Semiconductor upon Gas Adsorption. Advanced Materials, 2005, 17, 528-531.	11.1	51
46	Hydrogen production from nano-porous Si powder formed by stain etching. International Journal of Hydrogen Energy, 2010, 35, 6773-6778.	3.8	51
47	Sulphur poisoning of LaMn1â^'xMgxO3 catalysts for natural gas combustion. Applied Catalysis B: Environmental, 2001, 30, 61-73.	10.8	50
48	Direct patterning of silver particles on porous silicon by inkjet printing of a silver salt via in-situ reduction. Nanoscale Research Letters, 2012, 7, 502.	3.1	48
49	Nature and reactivity of Co species in a cobalt-containing beta zeolite: an FTIR study. Catalysis Today, 2001, 70, 107-119.	2.2	47
50	Bioconjugate functionalization of thermally carbonized porous silicon using a radical coupling reaction. Dalton Transactions, 2010, 39, 10847.	1.6	46
51	Nanomaterials for the Abatement of Pharmaceuticals and Personal Care Products from Wastewater. Applied Sciences (Switzerland), 2018, 8, 170.	1.3	46
52	Prediction of the optimum harvest time of â€˜Scarletâ€™ apples using DR-UVâ€“Vis and NIR spectroscopy. Postharvest Biology and Technology, 2012, 69, 15-23.	2.9	45
53	Spectroscopic study in the UV-Vis, near and mid IR of cationic species formed by interaction of thiophene, dithiophene and terthiophene with the zeolite H-Y. Physical Chemistry Chemical Physics, 1999, 1, 561-569.	1.3	44
54	Reversible Insulator-to-Metal Transition in p+-Type Mesoporous Silicon Induced by the Adsorption of Ammonia. Angewandte Chemie - International Edition, 2003, 42, 5032-5035.	7.2	43

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55	An EPR study on the formation of the superoxide radical ion on monoclinic zirconia. Materials Chemistry and Physics, 1991, 29, 379-386.	2.0	41
56	Chapter 4 Characterization of V2O5-TiO2 Eurocat catalysts by vibrational and electronic spectroscopies. Catalysis Today, 1994, 20, 61-76.	2.2	41
57	A version of StÃ¶ber synthesis enabling the facile prediction of silica nanospheres size for the fabrication of opal photonic crystals. Journal of Nanoparticle Research, 2008, 10, 1225-1229.	0.8	41
58	Immobilization of Oligonucleotides on Metal-Dielectric Nanostructures for miRNA Detection. Analytical Chemistry, 2016, 88, 9554-9563.	3.2	41
59	Permeability of micelles in surfactant-containing MCM-41 silica as monitored by embedded dye molecules. Chemical Communications, 2001, , 2216-2217.	2.2	40
60	SERS active silver nanoparticles synthesized by inkjet printing on mesoporous silicon. Nanoscale Research Letters, 2014, 9, 527.	3.1	40
61	Doubly resonant porous silicon microcavities for enhanced detection of fluorescent organic molecules. Sensors and Actuators B: Chemical, 2009, 137, 467-470.	4.0	39
62	SERS-active metal-dielectric nanostructures integrated in microfluidic devices for label-free quantitative detection of miRNA. Faraday Discussions, 2017, 205, 271-289.	1.6	39
63	Silver-doped keratin nanofibers preserve a titanium surface from biofilm contamination and favor soft-tissue healing. Journal of Materials Chemistry B, 2017, 5, 8366-8377.	2.9	39
64	Development of an automated method for the identification of defective hazelnuts based on RGB image analysis and colourgrams. Food Control, 2018, 94, 233-240.	2.8	38
65	The interaction between hydrogen peroxide and metal oxides: EPR investigations. Applied Magnetic Resonance, 1996, 10, 173-192.	0.6	35
66	Sonochemical preparation of high surface area MgAl2O4 spinel. Ultrasonics Sonochemistry, 2009, 16, 136-140.	3.8	35
67	Sulphur poisoning of LaMn1â^'xMgxO3Â·yMgO catalysts for methane combustion. Applied Catalysis B: Environmental, 2001, 34, 29-41.	10.8	34
68	Heterocycles oligomerization in acidic zeolites: a UV-visible and IR study. Topics in Catalysis, 1999, 8, 279-292.	1.3	32
69	Surface-enhanced Raman spectroscopy on porous silicon membranes decorated with Ag nanoparticles integrated in elastomeric microfluidic chips. RSC Advances, 2016, 6, 21865-21870.	1.7	32
70	Thermodynamics of Hydrogen Bonding between CO and the Supercage BrÃ¸nsted Acid Sites of the H-Y Zeolite â^' Studies from Variable Temperature IR Spectrometry. European Journal of Inorganic Chemistry, 2001, 2001, 1739-1743.	1.0	31
71	H-Bond Formation and Proton Transfer in H-MCM-22 Zeolite as Compared to H-ZSM-5 and H-MOR:â€‰ An FTIR Study. Journal of Physical Chemistry B, 2002, 106, 1684-1690.	1.2	31
72	Oxidised porous silicon impregnated with Congo Red for chemical sensoring applications. Sensors and Actuators B: Chemical, 2004, 100, 99-102.	4.0	31

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73	Host- guest interactions in zeolite cavities. Studies in Surface Science and Catalysis, 1995, 97, 213-222.	1.5	29
74	Optical response with threefold symmetry axis on oriented microdomains of opal photonic crystals. Physical Review B, 2008, 78, .	1.1	28
75	Nitrosylic complexes in Ag(I)â€“ZSM-5: a comparison with Cu(I)â€“ZSM-5. Microporous and Mesoporous Materials, 1999, 30, 129-135.	2.2	27
76	Synthesis, Characterization, and Thiophene Hydrodesulfurization Activity of Novel Macroporous and Mesomacroporous Carbon. Industrial & Engineering Chemistry Research, 2011, 50, 2530-2535.	1.8	27
77	Fe- and V-doped mesoporous titania prepared by direct synthesis: Characterization and role in the oxidation of AO7 by H2O2 in the dark. Catalysis Today, 2014, 227, 71-79.	2.2	27
78	Synthesis, characterization and modelling of silicon based opals. Journal of Non-Crystalline Solids, 2006, 352, 1425-1429.	1.5	26
79	IR detection of NO2 using p+ porous silicon as a high sensitivity sensor. Chemical Communications, 2001, , 2196-2197.	2.2	25
80	Joint FTIR and TPD study of hydrogen desorption from p-type porous silicon. Physica Status Solidi A, 2003, 197, 217-221.	1.7	25
81	Protein immobilization on nanoporous silicon functionalized by RF activated plasma polymerization of Acrylic Acid. Journal of Colloid and Interface Science, 2014, 416, 73-80.	5.0	25
82	XANES study of Ti and Fe substituted silicalites in presence and in absence of NH3 and comparison with UV-vis, IR and Raman spectra. Nuclear Instruments & Methods in Physics Research B, 1995, 97, 23-27.	0.6	23
83	Development of a Methane Premixed Catalytic Burner for Household Applications. Industrial & Engineering Chemistry Research, 2000, 39, 24-33.	1.8	23
84	Effects of gas atmospheres on poly(lactic acid) film in acrylic acid plasma treatment. Applied Surface Science, 2013, 283, 181-187.	3.1	22
85	FTIR study of CO adsorbed at low temperature on zeolite L Evidence for an ordered distribution of aluminium atoms. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 189-191.	1.7	21
86	SERSâ€active substrates based on silvered porous silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1736-1739.	0.8	21
87	Voltammetric characterization of structural titanium species in zeotypes. Electrochemistry Communications, 2000, 2, 349-352.	2.3	20
88	Inter-annual and seasonal variability in PM10 samples monitored in the city of Turin (Italy) from 2002 to 2005. Microchemical Journal, 2013, 107, 76-85.	2.3	19
89	Temporal trends of elements in Turin (Italy) atmospheric particulate matter from 1976 to 2001. Chemosphere, 2013, 90, 2578-2588.	4.2	19
90	IR Evidence that Secondary Interactions May Hamper H-Bonding at Protonic Sites in Zeolites. Journal of Physical Chemistry B, 2002, 106, 10518-10522.	1.2	18

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91	Free carriers reactivation on p+-mesoporous silicon through ammonia adsorption: a FTIR study. Sensors and Actuators B: Chemical, 2004, 100, 205-208.	4.0	17
92	Self-alignment of liquid crystals in three-dimensional photonic crystals. Physical Review E, 2006, 74, 040702.	0.8	16
93	Label-Free SERS Discrimination and In Situ Analysis of Life Cycle in Escherichia coli and Staphylococcus epidermidis. Biosensors, 2018, 8, 131.	2.3	16
94	Porous silicon in NO2: A chemisorption mechanism for enhanced electrical conductivity. Physica Status Solidi A, 2003, 197, 103-106.	1.7	15
95	Synthesis under Pressure of Potential Precursors of CN _x Materials Based on Melamine and Phenolic Resins. Journal of Macromolecular Science - Physics, 2010, 49, 371-382.	0.4	15
96	Post-curing conversion kinetics as functions of the irradiation time and increment thickness. Journal of Applied Oral Science, 2013, 21, 190-195.	0.7	15
97	Towards a Deeper Comprehension of the Interaction Mechanisms between Mesoporous Silicon and NO2. Physica Status Solidi A, 2000, 182, 465-471.	1.7	14
98	An FTIR Study of Zeolite Theta-1. Journal of Physical Chemistry B, 2003, 107, 1258-1262.	1.2	13
99	Chemisorption of NO2at Boron Sites at the Surface of Nanostructured Mesoporous Silicon. Journal of Physical Chemistry B, 2004, 108, 18306-18310.	1.2	12
100	Chapter 5.2 EPR characterization of V2O5/TiO2 eurocat catalysts. Catalysis Today, 1994, 20, 87-95.	2.2	11
101	A new route to the surface functionalisation of porous silicon. Sensors and Actuators B: Chemical, 2004, 100, 29-32.	4.0	11
102	Free carriers reactivation in mesoporous p-type silicon by ammonia condensation: an FTIR study. Physica Status Solidi A, 2003, 197, 458-461.	1.7	10
103	Metalâ€dielectric nanostructures for amplified Raman and fluorescence spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1196-1199.	0.8	10
104	Role of ice structuring proteins on freezingâ€“thawing cycles of pasta sauces. Journal of Food Science and Technology, 2016, 53, 4216-4223.	1.4	10
105	CoOâ€“ZnO solid solution as a model to investigate the COâ€“cation interaction: an FTIR and HRTEM study. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 4445-4450.	1.7	9
106	Controlled light emission from dye-impregnated porous silicon microcavities. Journal of Non-Crystalline Solids, 2006, 352, 1230-1233.	1.5	9
107	New-generation curing units and short irradiation time: the degree of conversion of microhybrid composite resin. Quintessence International, 2011, 42, e89-95.	0.3	9
108	ESR Study of Conduction Electrons in B-Doped Porous Silicon Generated by the Adsorption of Lewis Bases. Journal of the Electrochemical Society, 2005, 152, G329.	1.3	8

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109	Synthesis of amorphous silicon/magnesia based direct opals with tunable optical properties. Optical Materials, 2011, 33, 563-569.	1.7	8
110	Switching of fluorescence mediated by a peroxynitriteâ€“glutathione redox reaction in a porous silicon nanoreactor. Physical Chemistry Chemical Physics, 2012, 14, 5251.	1.3	7
111	Innovative Coatings Based on Peppermint Essential Oil on Titanium and Steel Substrates: Chemical and Mechanical Protection Ability. Materials, 2020, 13, 516.	1.3	7
112	Thermolysis of mixed alums: a route to mesoporous chromia-alumina. Materials Chemistry and Physics, 1993, 34, 214-218.	2.0	6
113	Kinetic modeling of hazelnut drying: Effects of different cultivars and drying parameters. Journal of Food Process Engineering, 2018, 41, e12632.	1.5	6
114	Solid state equilibria in the system Al2O3î—¸La2O3î—¸Cr2O3: Reactivity catalyst/support. Journal of the European Ceramic Society, 1998, 18, 607-611.	2.8	5
115	Boron passivation and its reactivation in mesoporous silicon: a â€œchemicalâ€•model. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 1567-1570.	0.8	5
116	Formation and oxygen diffusion barrier properties of fish gelatin/natural sodium montmorillonite clay self-assembled multilayers onto the biopolyester surface. RSC Advances, 2015, 5, 61465-61480.	1.7	5
117	Microstructure and optical properties of porous silicon after plasma assisted nitridation. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1661-1664.	0.8	4
118	Surface modification of porous silicon microparticles by sonochemistry. RSC Advances, 2013, 3, 18799.	1.7	4
119	New Method for Catalyst Powder Manufacturing Based on Solvent Combustion. Magyar AprÃ³vad KÃ¶zlemÃ©nyek, 1999, 56, 1435-1442.	1.4	3
120	Propene adsorption and reaction on zeolites and pillared clays. Research on Chemical Intermediates, 1999, 25, 111-129.	1.3	3
121	Real-Time Monitoring of the In Situ Microfluidic Synthesis of Ag Nanoparticles on Solid Substrate for Reliable SERS Detection. Biosensors, 2021, 11, 520.	2.3	2
122	Evolution of Fe3+from Framework to Extra-Framework Species in Fe-Silicate as a Function of the Template Burning Temperature. European Physical Journal Special Topics, 1997, 7, C2-907-C2-908.	0.2	1
123	Carriers reactivation in p+-type porous silicon accompanies hydrogen desorption. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3193-3197.	0.8	1
124	Study of Porous Silicon Nanostructures as Hydrogen Reservoirs.. ChemInform, 2006, 37, no.	0.1	0
125	SERS-active Metal-dielectric Nanostructures Integrated in Microfluidic Devices for Ultra-sensitive Label-free miRNA Detection. Procedia Technology, 2017, 27, 37-38.	1.1	0