Giovanni Agostini

List of Publications by Year
in descending order

99 papers	5,195 citations	87723 38 h-index	88477 70 g-index
106 all docs	106 docs citations	106 times ranked	7266 citing authors

#	Article	IF	Citations
1	Reactivity of Surface Species in Heterogeneous Catalysts Probed by In Situ X-ray Absorption Techniques. Chemical Reviews, 2013, 113, 1736-1850.	23.0	553
2	Generation of subnanometric platinum with high stability during transformation of a 2D zeolite intoÂ3D. Nature Materials, 2017, 16, 132-138.	13.3	505
3	Interaction of NH₃ with Cu-SSZ-13 Catalyst: A Complementary FTIR, XANES, and XES Study. Journal of Physical Chemistry Letters, 2014, 5, 1552-1559.	2.1	248
4	Local Structure of CPO-27-Ni Metallorganic Framework upon Dehydration and Coordination of NO. Chemistry of Materials, 2008, 20, 4957-4968.	3.2	195
5	In Situ XAS and XRPD Parametric Rietveld Refinement To Understand Dealumination of Y Zeolite Catalyst. Journal of the American Chemical Society, 2010, 132, 667-678.	6.6	174
6	Cotton textile fibres coated by Au/TiO2 films: Synthesis, characterization and self cleaning properties. Journal of Photochemistry and Photobiology A: Chemistry, 2008, 199, 64-72.	2.0	140
7	Room-Temperature CO Oxidation Catalyst: Low-Temperature Metalâ€“Support Interaction between Platinum Nanoparticles and Nanosized Ceria. ACS Catalysis, 2016, 6, 6151-6155.	5.5	136
8	A Stable Nanocobalt Catalyst with Highly Dispersed CoN_{<i>x</i>} Active Sites for the Selective Dehydrogenation of Formic Acid. Angewandte Chemie - International Edition, 2017, 56, 16616-16620.	7.2	135
9	Determination of the Particle Size, Available Surface Area, and Nature of Exposed Sites for Silicaâˆ’Alumina-Supported Pd Nanoparticles: A Multitechnical Approach. Journal of Physical Chemistry C, 2009, 113, 10485-10492.	1.5	124
10	Intermetallic nickel silicide nanocatalystâ€”A non-noble metalâ€“based general hydrogenation catalyst. Science Advances, 2018, 4, eaat0761.	4.7	116
11	Probing Reactive Platinum Sites in UiO-67 Zirconium Metalâ€“Organic Frameworks. Chemistry of Materials, 2015, 27, 1042-1056.	3.2	105
12	Low-dimensional systems investigated by x-ray absorption spectroscopy: a selection of 2D, 1D and 0D cases. Journal Physics D: Applied Physics, 2013, 46, 423001.	1.3	101
13	Prospects of Heterogeneous Hydroformylation with Supported Single Atom Catalysts. Journal of the American Chemical Society, 2020, 142, 5087-5096.	6.6	98
14	A comprehensive approach to investigate the structural and surface properties of activated carbons and related Pd-based catalysts. Catalysis Science and Technology, 2016, 6, 4910-4922.	2.1	96
15	The Time-resolved and Extreme-conditions XAS (TEXAS) facility at the European Synchrotron Radiation Facility: the energy-dispersive X-ray absorption spectroscopy beamline ID24. Journal of Synchrotron Radiation, 2016, 23, 353-368.	1.0	86
16	Model oxide supported MoS2 HDS catalysts: structure and surface properties. Catalysis Science and Technology, 2011, 1, 123.	2.1	81
17	Oneâ€Pot Cooperation of Singleâ€Atom Rh and Ru Solid Catalysts for a Selective Tandem Olefin Isomerizationâ€Hydrosilylation Process. Angewandte Chemie - International Edition, 2020, 59, 5806-5815.	7.2	76
18	Metal-Specific Reactivity in Single-Atom Catalysts: CO Oxidation on 4d and 5d Transition Metals Atomically Dispersed on MgO. Journal of the American Chemical Society, 2020, 142, 14890-14902.	6.6	75

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19	Time Resolved in Situ XAFS Study of the Electrochemical Oxygen Intercalation in SrFeO_{2.5} Brownmillerite Structure: Comparison with the Homologous SrCoO_{2.5} System. Journal of Physical Chemistry C, 2011, 115, 1311-1322.	1.5	72
20	Graphitization of Activated Carbons: A Molecular-level Investigation by INS, DRIFT, XRD and Raman Techniques. Physics Procedia, 2016, 85, 20-26.	1.2	68
21	A robust iron catalyst for the selective hydrogenation of substituted (iso)quinolones. Chemical Science, 2018, 9, 8134-8141.	3.7	63
22	Effect of reduction in liquid phase on the properties and the catalytic activity of Pd/Al2O3 catalysts. Journal of Catalysis, 2012, 287, 44-54.	3.1	62
23	Effect of Pre-Reduction on the Properties and the Catalytic Activity of Pd/Carbon Catalysts: A Comparison with Pd/Al₂O₃. ACS Catalysis, 2014, 4, 187-194.	5.5	62
24	Preparation of Supported Pd Catalysts: From the Pd Precursor Solution to the Deposited Pd2+ Phase. Langmuir, 2010, 26, 11204-11211.	1.6	61
25	0.5wt.% Pd/C catalyst for purification of terephthalic acid: Irreversible deactivation in industrial plants. Journal of Catalysis, 2011, 280, 150-160.	3.1	57
26	MoS₂ Nanoparticles Decorating Titanate-Nanotube Surfaces: Combined Microscopy, Spectroscopy, and Catalytic Studies. Langmuir, 2015, 31, 5469-5478.	1.6	55
27	Role of the Support in Determining the Vibrational Properties of Carbonyls Formed on Pd Supported on SiO2âˆ'Al2O3, Al2O3, and MgO. Journal of Physical Chemistry C, 2007, 111, 7021-7028.	1.5	54
28	Designing TiO₂ Based Nanostructures by Control of Surface Morphology of Pure and Silver Loaded Titanate Nanotubes. Journal of Physical Chemistry C, 2010, 114, 169-178.	1.5	54
29	Methane oxidation over Pd/Al2O3 under rich/lean cycling followed by operando XAFS and modulation excitation spectroscopy. Journal of Catalysis, 2017, 356, 237-245.	3.1	48
30	FTIR spectroscopy and thermodynamics of CO and H2 adsorbed on Î³-, Î´- and Î±-Al2O3. Physical Chemistry Chemical Physics, 2010, 12, 6474.	1.3	47
31	Effect of Different Face Centered Cubic Nanoparticle Distributions on Particle Size and Surface Area Determination: A Theoretical Study. Journal of Physical Chemistry C, 2014, 118, 4085-4094.	1.5	45
32	Synergy of Contact between ZnO Surface Planes and PdZn Nanostructures: Morphology and Chemical Property Effects in the Intermetallic Sites for Selective 1,3-Butadiene Hydrogenation. ACS Catalysis, 2017, 7, 796-811.	5.5	45
33	Influence of K-doping on a Pd/SiO2â€"Al2O3 catalyst. Journal of Catalysis, 2009, 267, 40-49.	3.1	44
34	Hydrogen thermo-photo production using Ru/TiO2: Heat and light synergistic effects. Applied Catalysis B: Environmental, 2019, 256, 117790.	10.8	44
35	From Isolated Ag⁺Ions to Aggregated Ag⁰Nanoclusters in Silver-Exchanged Engelhard Titanosilicate (ETS-10) Molecular Sieve: Reversible Behavior. Chemistry of Materials, 2009, 21, 1343-1353.	3.2	43
36	Development of Active and Stable Low Nickel Content Catalysts for Dry Reforming of Methane. Catalysts, 2017, 7, 157.	1.6	43

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37	Hydrogenation of Pyridines Using a Nitrogenâ€Modified Titaniaâ€Supported Cobalt Catalyst. Angewandte Chemie - International Edition, 2018, 57, 14488-14492.	7.2	42
38	Close-Packed Dye Molecules in Zeolite Channels Self-Assemble into Supramolecular Nanoladders. Journal of Physical Chemistry C, 2014, 118, 15732-15743.	1.5	41
39	Subnanometric Pd Particles Stabilized Inside Highly Cross-Linked Polymeric Supports. Chemistry of Materials, 2010, 22, 2297-2308.	3.2	40
40	CO Hydrogenation on Cobaltâ€Based Catalysts: Tin Poisoning Unravels CO in Hollow Sites as a Main Surface Intermediate. Angewandte Chemie - International Edition, 2018, 57, 547-550.	7.2	39
41	Insights into the Promotion with Ru of Co/TiO₂ Fischerâ€"Tropsch Catalysts: An In Situ Spectroscopic Study. ACS Catalysis, 2020, 10, 6042-6057.	5.5	39
42	Oriented TiO₂ Nanostructured Pillar Arrays: Synthesis and Characterization. Advanced Materials, 2008, 20, 3342-3348.	11.1	38
43	Formation and Growth of Pd Nanoparticles Inside a Highly Cross-Linked Polystyrene Support: Role of the Reducing Agent. Journal of Physical Chemistry C, 2014, 118, 8406-8415.	1.5	37
44	Watching Kinetic Studies as Chemical Maps Using Open-Source Software. Analytical Chemistry, 2016, 88, 6154-6160.	3.2	35
45	Pd-Supported Catalysts: Evolution of Support Porous Texture along Pd Deposition and Alkali-Metal Doping. Langmuir, 2009, 25, 6476-6485.	1.6	34
46	Rapid purification/oxidation of multi-walled carbon nanotubes under 300 kHz-ultrasound and microwave irradiation. New Journal of Chemistry, 2011, 35, 915.	1.4	31
47	Tuning Pt and Cu sites population inside functionalized UiO-67 MOF by controlling activation conditions. Faraday Discussions, 2017, 201, 265-286.	1.6	31
48	Cobalt nanoclusters coated with N-doped carbon for chemoselective nitroarene hydrogenation and tandem reactions in water. Green Chemistry, 2021, 23, 4490-4501.	4.6	31
49	Gold Nanoparticle Aggregates Immobilized on High Surface Area Silica Substrate for Efficient and Clean SERS Applications. Journal of Physical Chemistry C, 2010, 114, 3857-3862.	1.5	29
50	Insights into Cr/SiO₂ catalysts during dehydrogenation of propane: an operando XAS investigation. Catalysis Science and Technology, 2017, 7, 1690-1700.	2.1	28
51	The duality of UiO-67-Pt MOFs: connecting treatment conditions and encapsulated Pt species by<i>operando</i>XAS. Physical Chemistry Chemical Physics, 2017, 19, 27489-27507.	1.3	28
52	Reactivity of Cr Species Grafted on SiO₂/Si(100) Surface:â€‰ A Reflection Extended X-ray Absorption Fine Structure Study down to the Submonolayer Regime. Journal of Physical Chemistry C, 2007, 111, 16437-16444.	1.5	27
53	Illuminating the nature and behavior of the active center: the key for photocatalytic H₂production in Co@NH₂-MIL-125(Ti). Journal of Materials Chemistry A, 2018, 6, 17318-17322.	5.2	27
54	Zinc single atoms on N-doped carbon: An efficient and stable catalyst for CO2 fixation and conversion. Chinese Journal of Catalysis, 2019, 40, 1679-1685.	6.9	27

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55	Characterization of Surface Structure and Oxidation/Reduction Behavior of Pdâ€“Pt/Al₂O₃ Model Catalysts. Journal of Physical Chemistry C, 2016, 120, 28009-28020.	1.5	25
56	Nearest-neighbour distribution of distances in crystals from extended X-ray absorption fine structure. Journal of Chemical Physics, 2017, 147, 044503.	1.2	25
57	Growth and characterization of large high quality brownmillerite CaFeO2.5 single crystals. CrystEngComm, 2012, 14, 5771.	1.3	23
58	Time-Resolved XAS Investigation of the Local Environment and Evolution of Oxidation States of a Fischerâ€“Tropsch Ruâ€“Cs/C Catalyst. ACS Catalysis, 2016, 6, 1437-1445.	5.5	23
59	Structureâ€“reactivity relationship in Co₃O₄ promoted Au/CeO₂ catalysts for the CH₃OH oxidation reaction revealed by in situ FTIR and operando EXAFS studies. Journal of Materials Chemistry A, 2017, 5, 2083-2094.	5.2	23
60	Progress in the Characterization of the Surface Species in Activated Carbons by means of INS Spectroscopy Coupled with Detailed DFT Calculations. Advances in Condensed Matter Physics, 2015, 2015, 1-8.	0.4	22
61	XAS/DRIFTS/MS spectroscopy for time-resolved <i>operando</i> investigations at high temperature. Journal of Synchrotron Radiation, 2018, 25, 1745-1752.	1.0	22
62	<i>Î¼</i>â€EXAFS, <i>Î¼</i>â€XRF, and <i>Î¼</i>â€PL Characterization of a Multiâ€Quantumâ€Well Electroabsorption Modulated Laser Realized via Selective Area Growth. Small, 2011, 7, 930-938.	5.2	21
63	An<i>in situ</i>XAS study of the activation of precursor-dependent Pd nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 12700-12709.	1.3	21
64	CO dissociation on Pt-Sn nanoparticles triggers Sn oxidation and alloy segregation. Journal of Catalysis, 2018, 359, 76-81.	3.1	21
65	Oneâ€Pot Cooperation of Singleâ€Atom Rh and Ru Solid Catalysts for a Selective Tandem Olefin Isomerizationâ€Hydrosilylation Process. Angewandte Chemie, 2020, 132, 5855-5864.	1.6	21
66	Pdâ€“Au bimetallic catalysts supported on ZnO for selective 1,3-butadiene hydrogenation. Catalysis Science and Technology, 2020, 10, 2503-2512.	2.1	20
67	Anisotropy in the Raman scattering of a CaFeO_{2.5} single crystal and its link with oxygen ordering in Brownmillerite frameworks. Journal of Physics Condensed Matter, 2015, 27, 225403.	0.7	19
68	Nb-Modified Ce/Ti Oxide Catalyst for the Selective Catalytic Reduction of NO with NH3 at Low Temperature. Catalysts, 2018, 8, 175.	1.6	19
69	Structural Characterization of Multiâ€Quantum Wells in Electroabsorptionâ€Modulated Lasers by using Synchrotron Radiation Micrometerâ€Beams. Advanced Materials, 2010, 22, 2050-2054.	11.1	18
70	Synchrotron study of oxygen depletion in a Bi-2212 whisker annealed at 363â€…K. Journal of Synchrotron Radiation, 2009, 16, 813-817.	1.0	15
71	The Pyridyl Functional Groups Guide the Formation of Pd Nanoparticles Inside A Porous Poly(4â€Vinylâ€Pyridine). ChemCatChem, 2015, 7, 2188-2195.	1.8	15
72	Rationalizing the Effect of Triethylaluminum on the Cr/SiO₂Phillips Catalysts. ACS Catalysis, 2020, 10, 2694-2706.	5.5	15

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73	AgY zeolite as catalyst for the selective catalytic oxidation of NH3. Microporous and Mesoporous Materials, 2021, 323, 111230.	2.2	15
74	Au Nanoparticles as SERS Probes of the Silica Surface Layer Structure in the Absence and Presence of Adsorbates. Journal of Physical Chemistry C, 2008, 112, 4932-4936.	1.5	14
75	Study of methane oxidation over alumina supported Pdâ€“Pt catalysts using <i>operando</i> DRIFTS/MS and <i>in situ</i> XAS techniques. Journal of Lithic Studies, 2017, 3, 24-32.	0.1	14
76	Nanocrystalline TiO2 micropillar arrays grafted on conductive glass supports: microscopic and spectroscopic studies. Thin Solid Films, 2015, 590, 200-206.	0.8	12
77	Additive-Free Nickel-Catalyzed Debenzylation Reactions via Hydrogenative Câ€“O and Câ€“N Bond Cleavage. ACS Sustainable Chemistry and Engineering, 2019, 7, 17107-17113.	3.2	12
78	CHAPTER 5. Characterization of MOFs. 2. Long and Local Range Order Structural Determination of MOFs by Combining EXAFS and Diffraction Techniques. RSC Catalysis Series, 0, , 143-208.	0.1	11
79	Zeolite-driven Ag species during redox treatments and catalytic implications for SCO of NH₃. Journal of Materials Chemistry A, 2021, 9, 27448-27458.	5.2	11
80	Thermal effects on Rhodium nanoparticles supported on carbon. Journal of Physics: Conference Series, 2013, 430, 012031.	0.3	10
81	A XAFS study of the local environment and reactivity of Pt- sites in functionalized UiO-67 MOFs. Journal of Physics: Conference Series, 2016, 712, 012125.	0.3	10
82	Relations between Structure, Activity and Stability in C3N4 Based Photocatalysts Used for Solar Hydrogen Production. Catalysts, 2018, 8, 52.	1.6	10
83	The dynamics of pseudocapacitive phenomena studied by Energy Dispersive X-Ray Absorption Spectroscopy on hydrous iridium oxide electrodes in alkaline media. Electrochimica Acta, 2016, 212, 247-253.	2.6	8
84	Formation and growth of palladium nanoparticles inside porous poly(4-vinyl-pyridine) monitored by operando techniques: The role of different reducing agents. Catalysis Today, 2017, 283, 144-150.	2.2	8
85	Bottom-up assembly of bimetallic nanocluster catalysts from oxide-supported single-atom precursors. Journal of Materials Chemistry A, 2021, 9, 8401-8415.	5.2	8
86	Modeling the Structure of Complex Aluminosilicate Glasses: The Effect of Zinc Addition. Journal of Physical Chemistry B, 2016, 120, 2526-2537.	1.2	7
87	Nature and evolution of Pd catalysts supported on activated carbon fibers during the catalytic reduction of bromate in water. Catalysis Science and Technology, 2020, 10, 3646-3653.	2.1	7
88	Use of Alkylarsonium Directing Agents for the Synthesis and Study of Zeolites. Chemistry - A European Journal, 2019, 25, 16390-16396.	1.7	6
89	A flexible cell for <i>in situ</i> combined XASâ€“DRIFTSâ€“MS experiments. Journal of Synchrotron Radiation, 2019, 26, 801-810.	1.0	6
90	Exploring the benefits beyond the pre-reduction in methane of the Cr/SiO2 Phillips catalyst: The molecular structure of the Cr sites and their role in the catalytic performance. Journal of Catalysis, 2019, 373, 173-179.	3.1	6

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91	The Effect of Iron and Vanadium in VO y /Ce 1â€x Fe x O 2â€Î´ Catalysts in Lowâ€Temperature Selective Catalytic Reduction of NO x by Ammonia. ChemCatChem, 2020, 12, 2440-2451.	1.8	5
92	Catalyst Characterization by XAS and XES Spectroscopies: In Situ and Operando Experiments. , 2015, , 717-736.		5
93	Dye activation of heterogeneous Copper(II)-Species for visible light driven hydrogen generation. International Journal of Hydrogen Energy, 2019, 44, 28409-28420.	3.8	4
94	Local Structures of Oxygen-Deficient Perovskite Sr₂ScGaO₅ Polymorphs Explored by Total Neutron Scattering and EXAFS Spectroscopy. Inorganic Chemistry, 2020, 59, 9434-9442.	1.9	4
95	Investigation of carbon and alumina supported Pd catalysts during catalyst preparation. Studies in Surface Science and Catalysis, 2010, , 437-440.	1.5	2
96	Pd nanoparticles formation inside porous polymeric scaffolds followed by<i>in situ</i>XANES/SAXS. Journal of Physics: Conference Series, 2016, 712, 012039.	0.3	1
97	Spectroscopy in Catalysis. Catalysts, 2020, 10, 408.	1.6	1
98	Pd supported catalysts: Evolution of the support during Pd deposition and K doping. Studies in Surface Science and Catalysis, 2010, , 433-436.	1.5	0
99	5. Structural and electronic characterization of nanosized inorganic materials by X-ray absorption spectroscopies. , 0, , .		0