Jorge Anibal Boscoboinik

List of Publications by Year
in descending order

127 papers	3,295 citations	147801 31 h-index	182427 51 g-index
130 all docs	130 docs citations	130 times ranked	4011 citing authors

#	Article	IF	Citations
1	Molybdenum Carbide as Alternative Catalysts to Precious Metals for Highly Selective Reduction of CO₂ to CO. Angewandte Chemie - International Edition, 2014, 53, 6705-6709.	13.8	329
2	Low Pressure CO₂ Hydrogenation to Methanol over Gold Nanoparticles Activated on a CeO_x/TiO₂ Interface. Journal of the American Chemical Society, 2015, 137, 10104-10107.	13.7	200
3	Câ€“O bond activation using ultralow loading of noble metal catalysts on moderately reducible oxides. Nature Catalysis, 2020, 3, 446-453.	34.4	131
4	Thin silica films on Ru(0001): monolayer, bilayer and three-dimensional networks of [SiO4] tetrahedra. Physical Chemistry Chemical Physics, 2012, 14, 11344.	2.8	106
5	Modeling Zeolites with Metalâ€Supported Twoâ€Dimensional Aluminosilicate Films. Angewandte Chemie - International Edition, 2012, 51, 6005-6008.	13.8	96
6	Local Modulation of Single-Atomic Mn Sites for Enhanced Ambient Ammonia Electrosynthesis. ACS Catalysis, 2021, 11, 509-516.	11.2	93
7	Support effects on the atomic structure of ultrathin silica films on metals. Applied Physics Letters, 2012, 100, 151608.	3.3	80
8	Stable Potassium Metal Anodes with an Allâ€Aluminum Current Collector through Improved Electrolyte Wetting. Advanced Materials, 2020, 32, e2002908.	21.0	70
9	Interaction of Probe Molecules with Bridging Hydroxyls of Two-Dimensional Zeolites: A Surface Science Approach. Journal of Physical Chemistry C, 2013, 117, 13547-13556.	3.1	67
10	Operando high-pressure investigation of size-controlled CuZn catalysts for the methanol synthesis reaction. Nature Communications, 2021, 12, 1435.	12.8	62
11	FeMo sub-nanoclusters/single atoms for neutral ammonia electrosynthesis. Nano Energy, 2020, 77, 105078.	16.0	56
12	Monte Carlo and density functional theory analysis of the distribution of gold and palladium atoms on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Au</mml:mi><mml:mo>âˆ•</mml:mo><mml:mi mathvariant="normal">Pd</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:mn>111</mml:mn><mml:mo>)</mml:mo></mml:mrow> Physical Review B, 2008, 77, .	3.2	52
13	Ultrathin Silica Films: The Atomic Structure of Twoâ€Dimensional Crystals and Glasses. Chemistry - A European Journal, 2014, 20, 9176-9183.	3.3	51
14	Selenium-sulfur (SeS) fast charging cathode for sodium and lithium metal batteries. Energy Storage Materials, 2019, 20, 71-79.	18.0	50
15	Dilute Alloys Based on Au, Ag, or Cu for Efficient Catalysis: From Synthesis to Active Sites. Chemical Reviews, 2022, 122, 8758-8808.	47.7	50
16	One-dimensional supramolecular surface structures: 1,4-diisocyanobenzene on Au(111) surfaces. Physical Chemistry Chemical Physics, 2010, 12, 11624.	2.8	44
17	Oxidation and Reduction under Cover: Chemistry at the Confined Space between Ultrathin Nanoporous Silicates and Ru(0001). Journal of Physical Chemistry C, 2016, 120, 8240-8245.	3.1	44
18	Patterned Defect Structures Predicted for Graphene Are Observed on Single-Layer Silica Films. Nano Letters, 2013, 13, 4422-4427.	9.1	42

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19	Building blocks of zeolites on an aluminosilicate ultra-thin film. Microporous and Mesoporous Materials, 2013, 165, 158-162.	4.4	42
20	Observation of Surface-Bound Negatively Charged Hydride and Hydroxide on GaP(110) in H₂O Environments. Journal of Physical Chemistry C, 2015, 119, 17762-17772.	3.1	39
21	Stabilization of Ultrathin Zinc Oxide Films on Metals: Reconstruction versus Hydroxylation. Journal of Physical Chemistry C, 2015, 119, 7842-7847.	3.1	37
22	Creation of Low-Coordination Gold Sites on Au(111) Surface by 1,4-phenylene Diisocyanide Adsorption. Topics in Catalysis, 2011, 54, 20-25.	2.8	36
23	ZIFâ€8 Membrane Permselectivity Modification by Manganese(II) Acetylacetonate Vapor Treatment. Angewandte Chemie - International Edition, 2021, 60, 9316-9320.	13.8	36
24	Atomic Structure of an Ultrathin Fe-Silicate Film Grown on a Metal: AÂMonolayer of Clay?. Journal of the American Chemical Society, 2013, 135, 19222-19228.	13.7	35
25	ZnO(101Ì…0) Surface Hydroxylation under Ambient Water Vapor. Journal of Physical Chemistry B, 2018, 122, 472-478.	2.6	35
26	Modulating the dynamics of BrÃ¸nsted acid sites on PtWOx inverse catalyst. Nature Catalysis, 2022, 5, 144-153.	34.4	35
27	Enantioselective Chemisorption on Model Chirally Modified Surfaces: 2-Butanol on Î±-(1-Naphthyl)ethylamine/Pd(111). Journal of Physical Chemistry C, 2009, 113, 13877-13885.	3.1	34
28	Comparative Study of the Oxidation of NiAl(100) by Molecular Oxygen and Water Vapor Using Ambient-Pressure X-ray Photoelectron Spectroscopy. Langmuir, 2016, 32, 11414-11421.	3.5	34
29	Hydroxylation of Metal-Supported Sheet-Like Silica Films. Journal of Physical Chemistry C, 2013, 117, 8336-8344.	3.1	33
30	Molybdenum Carbide Electrocatalyst In Situ Embedded in Porous Nitrogenâ€Rich Carbon Nanotubes Promotes Rapid Kinetics in Sodiumâ€Metalâ€“Sulfur Batteries. Advanced Materials, 2022, 34, e2106572.	21.0	33
31	Energy Level Shifts at the Silica/Ru(0001) Heterojunction Driven by Surface and Interface Dipoles. Topics in Catalysis, 2017, 60, 481-491.	2.8	32
32	Site-Specific Sodiation Mechanisms of Selenium in Microporous Carbon Host. Nano Letters, 2020, 20, 918-928.	9.1	30
33	Twin-free, directly synthesized MFI nanosheets with improved thickness uniformity and their use in membrane fabrication. Science Advances, 2022, 8, eabm8162.	10.3	30
34	Immobilization of single argon atoms in nano-cages of two-dimensional zeolite model systems. Nature Communications, 2017, 8, 16118.	12.8	29
35	Oxygen-Promoted Methane Activation on Copper. Journal of Physical Chemistry B, 2018, 122, 855-863.	2.6	29
36	Ambient pressure x-ray photoelectron spectroscopy study of water formation and adsorption under two-dimensional silica and aluminosilicate layers on Pd(111). Journal of Chemical Physics, 2020, 152, 084705.	3.0	29

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37	Structure and Distribution ofS-Î±-(1-Naphthyl)-ethylamine on Pd(111). Journal of Physical Chemistry C, 2011, 115, 16488-16494.	3.1	28
38	Exploring Zeolite Chemistry with the Tools of Surface Science: Challenges, Opportunities, and Limitations. Catalysis Letters, 2014, 144, 1987-1995.	2.6	28
39	Oxidation of the Ru(0001) surface covered by weakly bound, ultrathin silicate films. Surface Science, 2016, 646, 19-25.	1.9	28
40	Isolating the Roles of Hydrogen Exposure and Trace Carbon Contamination on the Formation of Active Catalyst Populations for Carbon Nanotube Growth. ACS Nano, 2019, 13, 8736-8748.	14.6	28
41	Nitrogen-doped graphene catalysts: High energy wet ball milling synthesis and characterizations of functional groups and particle size variation with time and speed. International Journal of Energy Research, 2017, 41, 2535-2554.	4.5	27
42	Surface-reaction induced structural oscillations in the subsurface. Nature Communications, 2020, 11, 305.	12.8	27
43	Formation of Chiral Self-Assembled Structures of Amino Acids on Transition-Metal Surfaces: Alanine on Pd(111). Journal of Physical Chemistry C, 2014, 118, 6856-6865.	3.1	26
44	Linking gold nanoparticles with conductive 1,4-phenylene diisocyanideâ€“gold oligomers. Chemical Communications, 2013, 49, 1422.	4.1	25
45	Effects of Residual Solvent Molecules Facilitating the Infiltration Synthesis of ZnO in a Nonreactive Polymer. Chemistry of Materials, 2017, 29, 4535-4545.	6.7	24
46	Enhancing the partial oxidation of gasoline with Mo-doped Ni catalysts for SOFC applications: An integrated experimental and DFT study. Applied Catalysis B: Environmental, 2020, 266, 118626.	20.2	24
47	Low Temperature CO Oxidation on Ruthenium Oxide Thin Films at Near-Atmospheric Pressures. Catalysis Letters, 2012, 142, 657-663.	2.6	21
48	Insight into the Phase Transformation Pathways of Copper Oxidation: From Oxygen Chemisorption on the Clean Surface to Multilayer Bulk Oxide Growth. Journal of Physical Chemistry C, 2018, 122, 26519-26527.	3.1	20
49	Nitrogen-doped graphene-based catalyst with metal-reduced organic framework: Chemical analysis and structure control. Carbon, 2018, 139, 933-944.	10.3	20
50	Ionizationâ€Facilitated Formation of 2D (Alumino)Silicateâ€“Noble Gas Clathrate Compounds. Advanced Functional Materials, 2019, 29, 1806583.	14.9	20
51	Potassium-Promoted Reduction of Cu₂O/Cu(111) by CO. Journal of Physical Chemistry C, 2019, 123, 8057-8066.	3.1	20
52	Mechanism of the Accelerated Water Formation Reaction under Interfacial Confinement. ACS Catalysis, 2020, 10, 6119-6128.	11.2	20
53	Solvent-free bottom-up patterning of zeolitic imidazolate frameworks. Nature Communications, 2022, 13, 420.	12.8	20
54	Effects of copper loading on NH3-SCR and NO oxidation over Cu impregnated CHA zeolite. Korean Journal of Chemical Engineering, 2018, 35, 89-98.	2.7	19

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55	Multi-modal surface analysis of porous films under operando conditions. AIP Advances, 2020, 10, .	1.3	19
56	Fewâ€Unitâ€Cell MFI Zeolite Synthesized using a Simple Diâ€quaternary Ammonium Structureâ€Directing Agent. Angewandte Chemie - International Edition, 2021, 60, 19214-19221.	13.8	19
57	Segregation Phenomena in Size-Selected Bimetallic CuNi Nanoparticle Catalysts. Journal of Physical Chemistry B, 2018, 122, 919-926.	2.6	18
58	Chemistry in confined space through the eyes of surface scienceâ€”2D porous materials. Journal of Physics Condensed Matter, 2019, 31, 063001.	1.8	18
59	Determination of Adsorbate Structures from 1,4-Phenylene Diisocyanide on Gold. Journal of Physical Chemistry Letters, 2014, 5, 3577-3581.	4.6	17
60	Ultrathin Ti-Silicate Film on a Ru(0001) Surface. Journal of Physical Chemistry C, 2015, 119, 15443-15448.	3.1	17
61	Stabilization of a nanoporous NiCu dilute alloy catalyst for non-oxidative ethanol dehydrogenation. Catalysis Science and Technology, 2020, 10, 5207-5217.	4.1	17
62	Identification of Adsorption Ensembles on Bimetallic Alloys. Journal of Physical Chemistry C, 2010, 114, 1875-1880.	3.1	16
63	Predicting X-ray Photoelectron Peak Shapes: the Effect of Electronic Structure. Journal of Physical Chemistry C, 2021, 125, 10685-10692.	3.1	16
64	Identifying Molecular Species on Surfaces by Scanning Tunneling Microscopy: Methyl Pyruvate on Pd(111). Journal of Physical Chemistry C, 2013, 117, 4505-4514.	3.1	15
65	Tuning the Deoxygenation of Bulk-Dissolved Oxygen in Copper. Journal of Physical Chemistry C, 2018, 122, 8254-8261.	3.1	15
66	The adsorption and reaction of vinyl acetate on Au/Pd(111) alloy surfaces. Surface Science, 2008, 602, 3523-3530.	1.9	14
67	Preparation of an ordered ultra-thin aluminosilicate framework composed of hexagonal prisms forming a percolated network. Microporous and Mesoporous Materials, 2014, 189, 91-96.	4.4	13
68	Stabilization of Oxidized Copper Nanoclusters in Confined Spaces. Topics in Catalysis, 2018, 61, 419-427.	2.8	13
69	Synchrotron-based ambient pressure X-ray photoelectron spectroscopy of hydrogen and helium. Applied Physics Letters, 2018, 112, .	3.3	13
70	Investigation of the NO reduction by CO reaction over oxidized and reduced NiO_x/CeO₂ catalysts. Catalysis Science and Technology, 2021, 11, 7850-7865.	4.1	13
71	Formation of Induced-Fit Chiral Templates by Amino Acid-Functionalized Pd(111) Surfaces. Journal of Physical Chemistry C, 2015, 119, 3556-3563.	3.1	12
72	Electron beam induced modification of ZIF-8 membrane permeation properties. Chemical Communications, 2021, 57, 5250-5253.	4.1	12

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73	Enhanced Catalysis under 2D Silica: A CO Oxidation Study. Angewandte Chemie - International Edition, 2021, 60, 10888-10894.	13.8	12
74	Studying two-dimensional zeolites with the tools of surface science: MFI nanosheets on Au(111). Catalysis Today, 2017, 280, 283-288.	4.4	11
75	Lithium-Chemical Synthesis of Highly Conductive 3D Mesoporous Graphene for Highly Efficient New Generation Solar Cells. ACS Applied Energy Materials, 2019, 2, 1445-1451.	5.1	11
76	First-Principles Study of Interface Structures and Charge Rearrangement at the Aluminosilicate/Ru(0001) Heterojunction. Journal of Physical Chemistry C, 2019, 123, 7731-7739.	3.1	11
77	Tuning the surface composition of Cu₃Au binary alloy. Physical Chemistry Chemical Physics, 2020, 22, 3379-3389.	2.8	11
78	Experimental and Theoretical Insights into the Active Sites on WO_x/Pt(111) Surfaces for Dehydrogenation and Dehydration Reactions. ACS Catalysis, 2021, 11, 8023-8032.	11.2	11
79	Fundamental study of furfuryl alcohol dehydration reaction over molybdenum oxide catalyst. Molecular Catalysis, 2019, 466, 19-25.	2.0	10
80	Maximization of carbon nanotube yield by solid carbon-assisted dewetting of iron catalyst films. Carbon, 2020, 165, 251-258.	10.3	10
81	Mechanistic insights into carbonâ€“carbon coupling on NiAu and PdAu single-atom alloys. Journal of Chemical Physics, 2021, 154, 204701.	3.0	10
82	Structural Changes in Self-Catalyzed Adsorption of Carbon Monoxide on 1,4-Phenylene Diisocyanide Modified Au(111). Journal of Physical Chemistry C, 2015, 119, 18317-18325.	3.1	9
83	Adsorption transparency of supported graphene. Carbon, 2019, 155, 580-586.	10.3	9
84	Selective catalytic reduction of NO by ammonia and NO oxidation Over CoOx/CeO2 catalysts. Molecular Catalysis, 2020, 482, 110664.	2.0	9
85	Efficient Transport of Gold Atoms with a Scanning Tunneling Microscopy Tip and a Linker Molecule. Langmuir, 2011, 27, 9337-9344.	3.5	8
86	Structure of the Au/Pd(100) Alloy Surface. Journal of Physical Chemistry C, 2012, 116, 4692-4697.	3.1	8
87	Adsorbate-driven morphological changes on Cu(111) nano-pits. Physical Chemistry Chemical Physics, 2015, 17, 3032-3038.	2.8	8
88	Stand-alone polarization-modulation infrared reflection absorption spectroscopy instrument optimized for the study of catalytic processes at elevated pressures. Review of Scientific Instruments, 2017, 88, 105109.	1.3	8
89	Fewâ€Unitâ€Cell MFI Zeolite Synthesized using a Simple Diâ€quaternary Ammonium Structureâ€Directing Agent. Angewandte Chemie, 2021, 133, 19363-19370.	2.0	8
90	In Situ Monitoring of H₂-Induced Nonstoichiometry in Cu₂O. Journal of Physical Chemistry Letters, 2022, 13, 5597-5604.	4.6	8

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91	Measuring Charge Transfer between Adsorbate and Metal Surfaces. Journal of Physical Chemistry Letters, 2020, 11, 6827-6834.	4.6	7
92	Reversible Formation of Silanol Groups in Two-Dimensional Siliceous Nanomaterials under Mild Hydrothermal Conditions. Journal of Physical Chemistry C, 2020, 124, 18045-18053.	3.1	7
93	Zeolite Nanosheets Stabilize Catalyst Particles to Promote the Growth of Thermodynamically Unfavorable, Smallâ€Diameter Carbon Nanotubes. Small, 2020, 16, e2002120.	10.0	7
94	Tuning reactivity layer-by-layer: formic acid activation on Ag/Pd(111). Chemical Science, 2020, 11, 6492-6499.	7.4	7
95	ZIFâ€8 Membrane Permselectivity Modification by Manganese(II) Acetylacetonate Vapor Treatment. Angewandte Chemie, 2021, 133, 9402-9406.	2.0	7
96	In Situ Tracking of Nonthermal Plasma Etching of ZIF-8 Films. ACS Applied Materials & Interfaces, 2022, 14, 19023-19030.	8.0	7
97	Directed Nanoscale Self-Assembly of Molecular Wires Interconnecting Nodal Points Using Monte Carlo Simulations. Chemistry of Materials, 2015, 27, 6642-6649.	6.7	6
98	Adsorption and Oligomerization of 1,3-Phenylene Diisocyanide on Au(111). Journal of Physical Chemistry C, 2016, 120, 9270-9275.	3.1	5
99	Room-Temperature in Vacuo Chemisorption of Xenon Atoms on Ru(0001) under Interface Confinement. Journal of Physical Chemistry C, 2019, 123, 13578-13585.	3.1	5
100	Selenium infiltrated hierarchical hollow carbon spheres display rapid kinetics and extended cycling as lithium metal battery (LMB) cathodes. Journal of Materials Chemistry A, 2021, 9, 18582-18593.	10.3	5
101	Adsorptionâ€“desorption kinetics of the monomerâ€“dimer mixture. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1317-1328.	2.6	4
102	Confinement Effects on Furfuryl Alcohol Reactions over Porous Bilayer Silica-Modified Pd(111). Journal of Physical Chemistry C, 2020, 124, 25437-25446.	3.1	4
103	Atomistic mechanisms of the initial oxidation of stepped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mn>3</mml:mn></mml: Physical Review B, 2022, 105, .	3.2	4
104	Oxidation states in perovskite layers formed using various deposition techniques. Journal of Renewable and Sustainable Energy, 2019, 11, .	2.0	3
105	Morphology of Palladium Thin Film Deposited on a Two-Dimensional Bilayer Aluminosilicate. Topics in Catalysis, 2019, 62, 1067-1075.	2.8	3
106	Coupling between bulk thermal defects and surface segregation dynamics. Physical Review B, 2021, 104, .	3.2	3
107	Mechanism for Acetone and Crotonaldehyde Production during Steam Reforming of Ethanol over La_{0.7}Sr_{0.3}MnO_{3â€“x} Perovskite: Evidence for a Shared C4 Aldol Addition Intermediate. ACS Catalysis, 2022, 12, 4358-4374.	11.2	3
108	Carbon monoxide, CO(g), by high-resolution near-ambient-pressure x-ray photoelectron spectroscopy. Surface Science Spectra, 2020, 27, 014002.	1.3	2

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109	Structural evolution of two-dimensional silicates using a â€œbond-switchingâ€•algorithm. Nanoscale, 2021, 13, 2408-2419.	5.6	2
110	Hydrogen, H2(g), by near-ambient-pressure soft x-ray synchrotron-radiation photoelectron spectroscopy. Surface Science Spectra, 2021, 28, 014008.	1.3	2
111	Xenon Trapping in Metalâ€Supported Silica Nanocages. Small, 2021, 17, 2103661.	10.0	2
112	Water Formation Reaction under Interfacial Confinement: Al0.25Si0.75O2 on O-Ru(0001). Nanomaterials, 2022, 12, 183.	4.1	2
113	Effect of surface segregation on the oxidation resistance of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mn>x</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review Materials, 2022, 6, .	2.4	2
114	Cover Image, Volume 41, Issue 15. International Journal of Energy Research, 2017, 41, i-i.	4.5	1
115	Environmental TEM Studies Reveal Catalyst/Support Registry on 2D Zeolites. Microscopy and Microanalysis, 2019, 25, 1458-1459.	0.4	1
116	Potassium Metal Batteries: Stable Potassium Metal Anodes with an Allâ€Aluminum Current Collector through Improved Electrolyte Wetting (Adv. Mater. 49/2020). Advanced Materials, 2020, 32, 2070365.	21.0	1
117	Direct Evidence of Grapheneâ€Induced Molecular Reorientation in Polymer Films. Advanced Materials Interfaces, 2020, 7, 2000113.	3.7	1
118	Graphene/Polymer Interfaces: Direct Evidence of Grapheneâ€Induced Molecular Reorientation in Polymer Films (Adv. Mater. Interfaces 12/2020). Advanced Materials Interfaces, 2020, 7, 2070066.	3.7	1
119	Enhanced Catalysis under 2D Silica: A CO Oxidation Study. Angewandte Chemie, 2021, 133, 10983-10989.	2.0	1
120	Sequential desorption of dimers from square lattices: A novel mechanism for phase transitions. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 4116-4126.	2.6	0
121	Synthesis of mesoscale, crumpled, reduced graphene oxide roses by water-in-oil emulsion approach. Materials Research Express, 2018, 5, 055601.	1.6	0
122	6th San Luis Conference on Surfaces, Interfaces and Catalysis. Topics in Catalysis, 2019, 62, 805-807.	2.8	0
123	2Dâ€(Alumino)Silicateâ€Noble Clathrates: Ionizationâ€Facilitated Formation of 2D (Alumino)Silicateâ€“Noble Gas Clathrate Compounds (Adv. Funct. Mater. 20/2019). Advanced Functional Materials, 2019, 29, 1970137.	14.9	0
124	Synchrotron and optical probing of hybrid organic-inorganic perovskite halides for photovoltaics. , 2019, , .		0
125	Xenon Trapping in Metalâ€Supported Silica Nanocages (Small 39/2021). Small, 2021, 17, 2170204.	10.0	0
126	Exfoliating silica bilayers via intercalation at the silica/transition metal interface. Nanotechnology, 2022, 33, 135702.	2.6	0

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127	Addition of Transient Kinetics Capabilities to an Infrared Reflection Absorption Spectroscopy System through Synchronized Gas Pulsing and Data Acquisition. Catalysis Today, 2022, , .	4.4	0