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	Exfoliating silica bilayers via intercalation at the silica/transition metal interface. Nanotechnology, 2022, 33, 135702.	2.6	0
2	Water Formation Reaction under Interfacial Confinement: Al0.25Si0.75O2 on O-Ru(0001). Nanomaterials, 2022, 12, 183.	4.1	2
3	Solvent-free bottom-up patterning of zeolitic imidazolate frameworks. Nature Communications, 2022, 13, 420.	12.8	20
4	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:mn3</mml:mn></mml: Physical Review Materials, 2022, 6, .	2.4	2
5	Modulating the dynamics of BrÃ¸nsted acid sites on PtWOx inverse catalyst. Nature Catalysis, 2022, 5, 144-153.	34.4	35
6	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:mn3</mml:mn></mml: Physical Review B, 2022, 105, .	3.2	4
7	Mechanism for Acetone and Crotonaldehyde Production during Steam Reforming of Ethanol over La_{0.7}Sr_{0.3}MnO_{3â€“<i>x</i>} Perovskite: Evidence for a Shared C4 Aldol Addition Intermediate. ACS Catalysis, 2022, 12, 4358-4374.	11.2	3
8	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
9	Twin-free, directly synthesized MFI nanosheets with improved thickness uniformity and their use in membrane fabrication. Science Advances, 2022, 8, eabm8162.	10.3	30
10	<i>In Situ</i> Tracking of Nonthermal Plasma Etching of ZIF-8 Films. ACS Applied Materials & Interfaces, 2022, 14, 19023-19030.	8.0	7
11	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
12	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
13	In Situ Monitoring of H₂-Induced Nonstoichiometry in Cu₂O. Journal of Physical Chemistry Letters, 2022, 13, 5597-5604.	4.6	8
14	Structural evolution of two-dimensional silicates using a â€œbond-switchingâ€• algorithm. Nanoscale, 2021, 13, 2408-2419.	5.6	2
15	Electron beam induced modification of ZIF-8 membrane permeation properties. Chemical Communications, 2021, 57, 5250-5253.	4.1	12
16	ZIFâ€8 Membrane Permselectivity Modification by Manganese(II) Acetylacetonate Vapor Treatment. Angewandte Chemie - International Edition, 2021, 60, 9316-9320.	13.8	36
17	Enhanced Catalysis under 2D Silica: A CO Oxidation Study. Angewandte Chemie, 2021, 133, 10983-10989.	2.0	1
18	Operando high-pressure investigation of size-controlled CuZn catalysts for the methanol synthesis reaction. Nature Communications, 2021, 12, 1435.	12.8	62

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19	ZIFâ€8 Membrane Permselectivity Modification by Manganese(II) Acetylacetonate Vapor Treatment. Angewandte Chemie, 2021, 133, 9402-9406.	2.0	7
20	Enhanced Catalysis under 2D Silica: A CO Oxidation Study. Angewandte Chemie - International Edition, 2021, 60, 10888-10894.	13.8	12
21	Predicting X-ray Photoelectron Peak Shapes: the Effect of Electronic Structure. Journal of Physical Chemistry C, 2021, 125, 10685-10692.	3.1	16
22	Mechanistic insights into carbonâ€“carbon coupling on NiAu and PdAu single-atom alloys. Journal of Chemical Physics, 2021, 154, 204701.	3.0	10
23	Hydrogen, H2(g), by near-ambient-pressure soft x-ray synchrotron-radiation photoelectron spectroscopy. Surface Science Spectra, 2021, 28, 014008.	1.3	2
24	Experimental and Theoretical Insights into the Active Sites on WO<i>_x</i>/Pt(111) Surfaces for Dehydrogenation and Dehydration Reactions. ACS Catalysis, 2021, 11, 8023-8032.	11.2	11
25	Xenon Trapping in Metalâ€Supported Silica Nanocages. Small, 2021, 17, 2103661.	10.0	2
26	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
27	Coupling between bulk thermal defects and surface segregation dynamics. Physical Review B, 2021, 104, .	3.2	3
28	Fewâ€Unitâ€Cell MFI Zeolite Synthesized using a Simple Diâ€quaternary Ammonium Structureâ€Directing Agent. Angewandte Chemie, 2021, 133, 19363-19370.	2.0	8
29	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
30	Local Modulation of Single-Atomic Mn Sites for Enhanced Ambient Ammonia Electrosynthesis. ACS Catalysis, 2021, 11, 509-516.	11.2	93
31	Investigation of the NO reduction by CO reaction over oxidized and reduced NiO_{<i>x</i>}/CeO₂ catalysts. Catalysis Science and Technology, 2021, 11, 7850-7865.	4.1	13
32	Xenon Trapping in Metalâ€Supported Silica Nanocages (Small 39/2021). Small, 2021, 17, 2170204.	10.0	0
33	Selective catalytic reduction of NO by ammonia and NO oxidation Over CoOx/CeO2 catalysts. Molecular Catalysis, 2020, 482, 110664.	2.0	9
34	Site-Specific Sodiation Mechanisms of Selenium in Microporous Carbon Host. Nano Letters, 2020, 20, 918-928.	9.1	30
35	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
36	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

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37	Multi-modal surface analysis of porous films under <i>operando</i> conditions. AIP Advances, 2020, 10, .	1.3	19
38	Measuring Charge Transfer between Adsorbate and Metal Surfaces. Journal of Physical Chemistry Letters, 2020, 11, 6827-6834.	4.6	7
39	Stable Potassium Metal Anodes with an Allâ€Aluminum Current Collector through Improved Electrolyte Wetting. Advanced Materials, 2020, 32, e2002908.	21.0	70
40	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
41	Zeolite Nanosheets Stabilize Catalyst Particles to Promote the Growth of Thermodynamically Unfavorable, Smallâ€Diameter Carbon Nanotubes. Small, 2020, 16, e2002120.	10.0	7
42	Direct Evidence of Grapheneâ€Induced Molecular Reorientation in Polymer Films. Advanced Materials Interfaces, 2020, 7, 2000113.	3.7	1
43	Maximization of carbon nanotube yield by solid carbon-assisted dewetting of iron catalyst films. Carbon, 2020, 165, 251-258.	10.3	10
44	Mechanism of the Accelerated Water Formation Reaction under Interfacial Confinement. ACS Catalysis, 2020, 10, 6119-6128.	11.2	20
45	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
46	Câ€“O bond activation using ultralow loading of noble metal catalysts on moderately reducible oxides. Nature Catalysis, 2020, 3, 446-453.	34.4	131
47	FeMo sub-nanoclusters/single atoms for neutral ammonia electrosynthesis. Nano Energy, 2020, 77, 105078.	16.0	56
48	Stabilization of a nanoporous NiCu dilute alloy catalyst for non-oxidative ethanol dehydrogenation. Catalysis Science and Technology, 2020, 10, 5207-5217.	4.1	17
49	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
50	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
51	Tuning the surface composition of Cu₃Au binary alloy. Physical Chemistry Chemical Physics, 2020, 22, 3379-3389.	2.8	11
52	Surface-reaction induced structural oscillations in the subsurface. Nature Communications, 2020, 11, 305.	12.8	27
53	Carbon monoxide, CO(g), by high-resolution near-ambient-pressure x-ray photoelectron spectroscopy. Surface Science Spectra, 2020, 27, 014002.	1.3	2
54	Tuning reactivity layer-by-layer: formic acid activation on Ag/Pd(111). Chemical Science, 2020, 11, 6492-6499.	7.4	7

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55	Environmental TEM Studies Reveal Catalyst/Support Registry on 2D Zeolites. Microscopy and Microanalysis, 2019, 25, 1458-1459.	0.4	1
56	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
57	6th San Luis Conference on Surfaces, Interfaces and Catalysis. Topics in Catalysis, 2019, 62, 805-807.	2.8	0
58	Oxidation states in perovskite layers formed using various deposition techniques. Journal of Renewable and Sustainable Energy, 2019, 11, .	2.0	3
59	Morphology of Palladium Thin Film Deposited on a Two-Dimensional Bilayer Aluminosilicate. Topics in Catalysis, 2019, 62, 1067-1075.	2.8	3
60	Adsorption transparency of supported graphene. Carbon, 2019, 155, 580-586.	10.3	9
61	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
62	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
63	Selenium-sulfur (SeS) fast charging cathode for sodium and lithium metal batteries. Energy Storage Materials, 2019, 20, 71-79.	18.0	50
64	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
65	Ionizationâ€Facilitated Formation of 2D (Alumino)Silicateâ€"Noble Gas Clathrate Compounds. Advanced Functional Materials, 2019, 29, 1806583.	14.9	20
66	Synchrotron and optical probing of hybrid organic-inorganic perovskite halides for photovoltaics. , 2019, , .		0
67	Potassium-Promoted Reduction of Cu₂O/Cu(111) by CO. Journal of Physical Chemistry C, 2019, 123, 8057-8066.	3.1	20
68	Chemistry in confined space through the eyes of surface scienceâ€"2D porous materials. Journal of Physics Condensed Matter, 2019, 31, 063001.	1.8	18
69	Fundamental study of furfuryl alcohol dehydration reaction over molybdenum oxide catalyst. Molecular Catalysis, 2019, 466, 19-25.	2.0	10
70	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
71	Tuning the Deoxygenation of Bulk-Dissolved Oxygen in Copper. Journal of Physical Chemistry C, 2018, 122, 8254-8261.	3.1	15
72	Stabilization of Oxidized Copper Nanoclusters in Confined Spaces. Topics in Catalysis, 2018, 61, 419-427.	2.8	13

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73	Synchrotron-based ambient pressure X-ray photoelectron spectroscopy of hydrogen and helium. Applied Physics Letters, 2018, 112, .	3.3	13
74	Segregation Phenomena in Size-Selected Bimetallic CuNi Nanoparticle Catalysts. Journal of Physical Chemistry B, 2018, 122, 919-926.	2.6	18
75	Oxygen-Promoted Methane Activation on Copper. Journal of Physical Chemistry B, 2018, 122, 855-863.	2.6	29
76	ZnO(101Ì…0) Surface Hydroxylation under Ambient Water Vapor. Journal of Physical Chemistry B, 2018, 122, 472-478.	2.6	35
77	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
78	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
79	Nitrogen-doped graphene-based catalyst with metal-reduced organic framework: Chemical analysis and structure control. Carbon, 2018, 139, 933-944.	10.3	20
80	Synthesis of mesoscale, crumpled, reduced graphene oxide roses by water-in-oil emulsion approach. Materials Research Express, 2018, 5, 055601.	1.6	0
81	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
82	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
83	Immobilization of single argon atoms in nano-cages of two-dimensional zeolite model systems. Nature Communications, 2017, 8, 16118.	12.8	29
84	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
85	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
86	Studying two-dimensional zeolites with the tools of surface science: MFI nanosheets on Au(111). Catalysis Today, 2017, 280, 283-288.	4.4	11
87	Cover Image, Volume 41, Issue 15. International Journal of Energy Research, 2017, 41, i-i.	4.5	1
88	Adsorption and Oligomerization of 1,3-Phenylene Diisocyanide on Au(111). Journal of Physical Chemistry C, 2016, 120, 9270-9275.	3.1	5
89	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
90	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

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91	Oxidation of the Ru(0001) surface covered by weakly bound, ultrathin silicate films. Surface Science, 2016, 646, 19-25.	1.9	28
92	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
93	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
94	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
95	Low Pressure CO₂ Hydrogenation to Methanol over Gold Nanoparticles Activated on a CeO_{<i>x</i>}/TiO₂ Interface. Journal of the American Chemical Society, 2015, 137, 10104-10107.	13.7	200
96	Ultrathin Ti-Silicate Film on a Ru(0001) Surface. Journal of Physical Chemistry C, 2015, 119, 15443-15448.	3.1	17
97	Stabilization of Ultrathin Zinc Oxide Films on Metals: Reconstruction versus Hydroxylation. Journal of Physical Chemistry C, 2015, 119, 7842-7847.	3.1	37
98	Directed Nanoscale Self-Assembly of Molecular Wires Interconnecting Nodal Points Using Monte Carlo Simulations. Chemistry of Materials, 2015, 27, 6642-6649.	6.7	6
99	Adsorbate-driven morphological changes on Cu(111) nano-pits. Physical Chemistry Chemical Physics, 2015, 17, 3032-3038.	2.8	8
100	Ultrathin Silica Films: The Atomic Structure of Twoâ€Dimensional Crystals and Glasses. Chemistry - A European Journal, 2014, 20, 9176-9183.	3.3	51
101	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
102	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
103	Exploring Zeolite Chemistry with the Tools of Surface Science: Challenges, Opportunities, and Limitations. Catalysis Letters, 2014, 144, 1987-1995.	2.6	28
104	Determination of Adsorbate Structures from 1,4-Phenylene Diisocyanide on Gold. Journal of Physical Chemistry Letters, 2014, 5, 3577-3581.	4.6	17
105	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
106	Patterned Defect Structures Predicted for Graphene Are Observed on Single-Layer Silica Films. Nano Letters, 2013, 13, 4422-4427.	9.1	42
107	Linking gold nanoparticles with conductive 1,4-phenylene diisocyanideâ€“gold oligomers. Chemical Communications, 2013, 49, 1422.	4.1	25
108	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

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109	Hydroxylation of Metal-Supported Sheet-Like Silica Films. Journal of Physical Chemistry C, 2013, 117, 8336-8344.	3.1	33
110	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
111	Building blocks of zeolites on an aluminosilicate ultra-thin film. Microporous and Mesoporous Materials, 2013, 165, 158-162.	4.4	42
112	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
113	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
114	Structure of the Au/Pd(100) Alloy Surface. Journal of Physical Chemistry C, 2012, 116, 4692-4697.	3.1	8
115	Support effects on the atomic structure of ultrathin silica films on metals. Applied Physics Letters, 2012, 100, 151608.	3.3	80
116	Modeling Zeolites with Metalâ€Supported Twoâ€Dimensional Aluminosilicate Films. Angewandte Chemie - International Edition, 2012, 51, 6005-6008.	13.8	96
117	Low Temperature CO Oxidation on Ruthenium Oxide Thin Films at Near-Atmospheric Pressures. Catalysis Letters, 2012, 142, 657-663.	2.6	21
118	Structure and Distribution of<i>S</i>-Î±-(1-Naphthyl)-ethylamine on Pd(111). Journal of Physical Chemistry C, 2011, 115, 16488-16494.	3.1	28
119	Efficient Transport of Gold Atoms with a Scanning Tunneling Microscopy Tip and a Linker Molecule. Langmuir, 2011, 27, 9337-9344.	3.5	8
120	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
121	Adsorptionâ€“desorption kinetics of the monomerâ€“dimer mixture. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 1317-1328.	2.6	4
122	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
123	Identification of Adsorption Ensembles on Bimetallic Alloys. Journal of Physical Chemistry C, 2010, 114, 1875-1880.	3.1	16
124	One-dimensional supramolecular surface structures: 1,4-diisocyanobenzene on Au(111) surfaces. Physical Chemistry Chemical Physics, 2010, 12, 11624.	2.8	44
125	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
126	The adsorption and reaction of vinyl acetate on Au/Pd(111) alloy surfaces. Surface Science, 2008, 602, 3523-3530.	1.9	14

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127	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>â^•</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