Albert Bruix

List of Publications by Year
in descending order

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45	3,668	249298	252626
papers	citations	26 h-index	46 g-index

51	51	51	6702
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Activating catalysts by adsorbate-induced reconstructions. Nature Catalysis, 2022, 5, 84-85.	16.1	1
2	Charting the Atomic C Interaction with Transition Metal Surfaces. ACS Catalysis, 2022, 12, 9256-9269.	5.5	6
3	Chemical ordering in Ptâ€“Au, Ptâ€“Ag and Ptâ€“Cu nanoparticles from density functional calculations using a topological approach. Materials Advances, 2021, 2, 6589-6602.	2.6	12
4	Size-dependent phase stability in transition metal dichalcogenide nanoparticles controlled by metal substrates. Nanoscale, 2021, 13, 10167-10180.	2.8	4
5	CO oxidation activity of Pt/CeO2 catalysts below 0 Â°C: platinum loading effects. Applied Catalysis B: Environmental, 2021, 286, 119931.	10.8	83
6	AgPd, AuPd, and AuPt Nanoalloys with Ag- or Au-Rich Compositions: Modeling Chemical Ordering and Optical Properties. Journal of Physical Chemistry C, 2021, 125, 17372-17384.	1.5	15
7	First-principles-based multiscale modelling of heterogeneous catalysis. Nature Catalysis, 2019, 2, 659-670.	16.1	197
8	Chemically-resolved determination of hydrogenated grapheneâ€“substrate interaction. Physical Chemistry Chemical Physics, 2019, 21, 13462-13466.	1.3	7
9	van der Waals exchange-correlation functionals over bulk and surface properties of transition metals. Journal of Physics Condensed Matter, 2019, 31, 315501.	0.7	10
10	Effects of Gas-Phase Conditions and Particle Size on the Properties of Cu(111)-Supported Zn_yO_x Particles Revealed by Global Optimization and Ab Initio Thermodynamics. Journal of Physical Chemistry C, 2019, 123, 30903-30916.	1.5	17
11	Ab initio study of CO2 hydrogenation mechanisms on inverse ZnO/Cu catalysts. Journal of Catalysis, 2018, 360, 168-174.	3.1	58
12	Step edge structures on the anatase TiO₂ (001) surface studied by atomic-resolution TEM and STM. Faraday Discussions, 2018, 208, 325-338.	1.6	13
13	Water Dissociation and Hydroxyl Ordering on Anatase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>TiO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:mn>001</mml:mn><mml:mo) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 252 Td (stretchy="false		

#	Article	IF	Citations
19	Waterâ€Gasâ€Shift over Metalâ€Free Nanocrystalline Ceria: An Experimental and Theoretical Study. ChemCatChem, 2017, 9, 1373-1377.	1.8	13
20	Oxide-based nanomaterials for fuel cell catalysis: the interplay between supported single Pt atoms and particles. Catalysis Science and Technology, 2017, 7, 4315-4345.	2.1	84
21	Metal-doped ceria nanoparticles: stability and redox processes. Physical Chemistry Chemical Physics, 2017, 19, 21729-21738.	1.3	30
22	Substrate-induced semiconductor-to-metal transition in monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>WS</mml:mi><mml:mn>2</mml:mn></mml:msub></mm Physical Review B, 2017, 96, .	1.1	33
23	Modeling Ceria-Based Nanomaterials for Catalysis and Related Applications. Catalysis Letters, 2016, 146, 2053-2080.	1.4	63
24	High efficiency of Pt2+- CeO2 novel thin film catalyst as anode for proton exchange membrane fuel cells. Applied Catalysis B: Environmental, 2016, 197, 262-270.	10.8	52
25	Crystalline and electronic structure of single-layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>TaS</mml:mi><mml:mn>2</mml:mn></mml:msub></m Physical Review B, 2016, 94, .	1.1	57
26	Band-gap engineering by Bi intercalation of graphene on Ir(111). Physical Review B, 2016, 93, .	1.1	30
27	Single-layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>MoS</mml:mtext><mml:mn>2</mml:mn></mml:msub Au(111): Band gap renormalization and substrate interaction. Physical Review B, 2016, 93, .	1.1	128
28	Symmetry-Driven Band Gap Engineering in Hydrogen Functionalized Graphene. ACS Nano, 2016, 10, 10798-10807.	7.3	55
29	Designing new catalysts: synthesis of new active structures: general discussion. Faraday Discussions, 2016, 188, 131-159.	1.6	4
30	Catalyst design from theory to practice: general discussion. Faraday Discussions, 2016, 188, 279-307.	1.6	2
31	Bridging model and real catalysts: general discussion. Faraday Discussions, 2016, 188, 565-589.	1.6	3
32	Effects of particle size and edge structure on the electronic structure, spectroscopic features, and chemical properties of Au(111)-supported MoS₂ nanoparticles. Faraday Discussions, 2016, 188, 323-343.	1.6	22
33	Towards stable single-atom catalysts: strong binding of atomically dispersed transition metals on the surface of nanostructured ceria. Catalysis Science and Technology, 2016, 6, 6806-6813.	2.1	92
34	Growth and electronic structure of epitaxial single-layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>WS</mml:mtext><mml:mn>2</mml:mn></mml:msub Au(111). Physical Review B, 2015, 92, .	1.1	70
35	Theoretical Study of the Stoichiometric and Reduced Ce-Doped TiO2Anatase (001) Surfaces. Journal of Physical Chemistry C, 2015, 119, 4805-4816.	1.5	24
36	In Situ Detection of Active Edge Sites in Single-Layer MoS₂ Catalysts. ACS Nano, 2015, 9, 9322-9330.	7.3	144

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37	DFT Study on Ce-Doped Anatase TiO₂: Nature of Ce³⁺ and Ti³⁺ Centers Triggered by Oxygen Vacancy Formation. Journal of Physical Chemistry C, 2014, 118, 9677-9689.	1.5	51
38	The Unique Properties of the Oxide-Metal Interface: Reaction of Ethanol on an Inverse Model CeO_xâ€“Au(111) Catalyst. Journal of Physical Chemistry C, 2014, 118, 25057-25064.	1.5	22
39	Maximum Nobleâ€Metal Efficiency in Catalytic Materials: Atomically Dispersed Surface Platinum. Angewandte Chemie - International Edition, 2014, 53, 10525-10530.	7.2	384
40	A New Type of Strong Metalâ€“Support Interaction and the Production of H₂ through the Transformation of Water on Pt/CeO₂(111) and Pt/CeO_x/TiO₂(110) Catalysts. Journal of the American Chemical Society, 2012, 134, 8968-8974.	6.6	682
41	Density functional theory model study of size and structure effects on water dissociation by platinum nanoparticles. Journal of Chemical Physics, 2012, 137, 034701.	1.2	56
42	Effects of deposited Pt particles on the reducibility of CeO2(111). Physical Chemistry Chemical Physics, 2011, 13, 11384.	1.3	89
43	Support nanostructure boosts oxygen transfer to catalytically active platinum nanoparticles. Nature Materials, 2011, 10, 310-315.	13.3	748
44	On the adsorption and formation of Pt dimers on the CeO2(111) surface. Journal of Chemical Physics, 2011, 135, 244708.	1.2	14
45	Adsorption, Oxidation State, and Diffusion of Pt Atoms on the CeO₂(111) Surface. Journal of Physical Chemistry C, 2010, 114, 14202-14207.	1.5	71