

Christian Papp

List of Publications by Year in descending order

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123
papers

6,406
citations

109137

35
h-index

66788

78
g-index

130
all docs

130
docs citations

130
times ranked

9096
citing authors

#	ARTICLE	IF	CITATIONS
1	The Synthesis of Nanostructured Ni ₅ P ₄ Films and their Use as a Non-Noble Bifunctional Electrocatalyst for Full Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12361-12365.	7.2	751
2	Liquid Organic Hydrogen Carriers (LOHCs): Toward a Hydrogen-free Hydrogen Economy. <i>Accounts of Chemical Research</i> , 2017, 50, 74-85.	7.6	698
3	Covalent bulk functionalization of graphene. <i>Nature Chemistry</i> , 2011, 3, 279-286.	6.6	596
4	Wet Chemical Synthesis of Graphene. <i>Advanced Materials</i> , 2013, 25, 3583-3587.	11.1	453
5	Gallium-rich Pd-Ga phases as supported liquid metal catalysts. <i>Nature Chemistry</i> , 2017, 9, 862-867.	6.6	234
6	Graphene on Ni(111): Coexistence of Different Surface Structures. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 759-764.	2.1	158
7	Probing bulk electronic structure with hard X-ray angle-resolved photoemission. <i>Nature Materials</i> , 2011, 10, 759-764.	13.3	153
8	Effects of Support and Rh Additive on Co-Based Catalysts in the Ethanol Steam Reforming Reaction. <i>ACS Catalysis</i> , 2014, 4, 1205-1218.	5.5	130
9	Methane Activation by Platinum: Critical Role of Edge and Corner Sites of Metal Nanoparticles. <i>Chemistry - A European Journal</i> , 2010, 16, 6530-6539.	1.7	126
10	Growth and electronic structure of boron-doped graphene. <i>Physical Review B</i> , 2013, 87, .	1.1	113
11	Carbon Dioxide Capture by an Amine Functionalized Ionic Liquid: Fundamental Differences of Surface and Bulk Behavior. <i>Journal of the American Chemical Society</i> , 2014, 136, 436-441.	6.6	109
12	Model Catalytic Studies of Liquid Organic Hydrogen Carriers: Dehydrogenation and Decomposition Mechanisms of Dodecahydro-N-ethylcarbazole on Pt(111). <i>ACS Catalysis</i> , 2014, 4, 657-665.	5.5	106
13	Near ambient pressure XPS investigation of the interaction of ethanol with Co/CeO ₂ (111). <i>Journal of Catalysis</i> , 2013, 307, 132-139.	3.1	105
14	Production of Nitrogen-Doped Graphene by Low-Energy Nitrogen Implantation. <i>Journal of Physical Chemistry C</i> , 2012, 116, 5062-5066.	1.5	96
15	In situ high-resolution X-ray photoelectron spectroscopy – Fundamental insights in surface reactions. <i>Surface Science Reports</i> , 2013, 68, 446-487.	3.8	90
16	Dehydrogenation of Dodecahydro-N-ethylcarbazole on Pd/Al ₂ O ₃ Model Catalysts. <i>Chemistry - A European Journal</i> , 2011, 17, 11542-11552.	1.7	89
17	Dehydrogenation Mechanism of Liquid Organic Hydrogen Carriers: Dodecahydro-N-ethylcarbazole on Pd(111). <i>Chemistry - A European Journal</i> , 2013, 19, 10854-10865.	1.7	79
18	Growth and electronic structure of nitrogen-doped graphene on Ni(111). <i>Physical Review B</i> , 2012, 86, .	1.1	77

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19	Highly Effective Propane Dehydrogenation Using Ga–Rh Supported Catalytically Active Liquid Metal Solutions. ACS Catalysis, 2019, 9, 9499-9507.	5.5	76
20	Dehydrogenation of Dodecahydro-1H-ethylcarbazole on Pt(111). ChemSusChem, 2013, 6, 974-977.	3.6	73
21	Interface properties of magnetic tunnel junction $La_{1-x}Mn_xO_3$ Physical Review B, 2010, 82, .	1.1	71
22	Size and Structure Effects Controlling the Stability of the Liquid Organic Hydrogen Carrier Dodecahydro-1H-ethylcarbazole during Dehydrogenation over Pt Model Catalysts. Journal of Physical Chemistry Letters, 2014, 5, 1498-1504.	2.1	69
23	Activated adsorption of methane on Pt(111) – an in situ XPS study. New Journal of Physics, 2005, 7, 107-107.	1.2	67
24	Lattice Opening upon Bulk Reductive Covalent Functionalization of Black Phosphorus. Angewandte Chemie - International Edition, 2019, 58, 5763-5768.	7.2	60
25	Growth and oxidation of graphene on Rh(111). Physical Chemistry Chemical Physics, 2013, 15, 19625.	1.3	57
26	Reversible Hydrogenation of Graphene on Ni(111) – Synthesis of “Graphene”. Chemistry - A European Journal, 2015, 21, 3347-3358.	1.7	57
27	Photochemical Energy Storage and Electrochemically Triggered Energy Release in the Norbornadiene–Quadracyclane System: UV-Photochemistry and IR Spectroelectrochemistry in a Combined Experiment. Journal of Physical Chemistry Letters, 2017, 8, 2819-2825.	2.1	56
28	Energy Storage in Strained Organic Molecules: (Spectro)Electrochemical Characterization of Norbornadiene and Quadracyclane. ChemSusChem, 2016, 9, 1424-1432.	3.6	55
29	Probing the interaction of Rh, Co and bimetallic Rh–Co nanoparticles with the CeO ₂ support: catalytic materials for alternative energy generation. Physical Chemistry Chemical Physics, 2015, 17, 27154-27166.	1.3	52
30	A site-selective in situ study of CO adsorption and desorption on Pt(355). Journal of Chemical Physics, 2006, 124, 074712.	1.2	51
31	The dissimilar twins – a comparative, site-selective in situ study of CO adsorption and desorption on Pt(322) and Pt(355). Surface Science, 2007, 601, 1108-1117.	0.8	48
32	Growth of Stable Surface Oxides on Pt(111) at Near-Ambient Pressures. Angewandte Chemie - International Edition, 2017, 56, 2594-2598.	7.2	47
33	A detailed analysis of vibrational excitations in x-ray photoelectron spectra of adsorbed small hydrocarbons. Journal of Chemical Physics, 2006, 125, 204706.	1.2	45
34	Reactivity of Graphene-Supported Pt Nanocluster Arrays. ACS Catalysis, 2015, 5, 2397-2403.	5.5	38
35	General and selective deoxygenation by hydrogen using a reusable earth-abundant metal catalyst. Science Advances, 2019, 5, eaav3680.	4.7	37
36	Liquid Organic Hydrogen Carriers: Surface Science Studies of Carbazole Derivatives. Chemical Record, 2014, 14, 879-896.	2.9	36

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37	Oxidation of stepped Pt(111) studied by x-ray photoelectron spectroscopy and density functional theory. <i>Physical Review B</i> , 2011, 83, .	1.1	35
38	Band mapping in x-ray photoelectron spectroscopy: An experimental and theoretical study of W(110) with 1.25 keV excitation. <i>Physical Review B</i> , 2011, 84, .	1.1	34
39	Decoupling of graphene from Ni(111) via formation of an interfacial NiO layer. <i>Carbon</i> , 2017, 121, 10-16.	5.4	34
40	CO oxidation on Pt(111) at near ambient pressures. <i>Journal of Chemical Physics</i> , 2016, 144, 044706.	1.2	33
41	Dehydrogenation of the Liquid Organic Hydrogen Carrier System Indole/Indoline/Octahydroindole on Pt(111). <i>Journal of Physical Chemistry C</i> , 2018, 122, 4470-4479.	1.5	33
42	Influence of Steps on the Adsorption of Methane on Platinum Surfaces. <i>Journal of Physical Chemistry C</i> , 2007, 111, 2177-2184.	1.5	32
43	The Interaction of Cobalt with CeO ₂ (111) Prepared on Cu(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 9324-9333.	1.5	32
44	Determination of layer-resolved composition, magnetization, and electronic structure of an Fe/MgO tunnel junction by standing-wave core and valence photoemission. <i>Physical Review B</i> , 2011, 84, .	1.1	31
45	Catalytically Triggered Energy Release from Strained Organic Molecules: The Surface Chemistry of Quadricyclane and Norbornadiene on Pt(111). <i>Chemistry - A European Journal</i> , 2017, 23, 1613-1622.	1.7	31
46	A facile approach to synthesize an oxo-functionalized graphene/polymer composite for low-voltage operating memory devices. <i>Journal of Materials Chemistry C</i> , 2015, 3, 8595-8604.	2.7	30
47	Sulfur Oxidation on Pt(355): It Is the Steps!. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 9743-9746.	7.2	29
48	Hydrogenation and hydrogen intercalation of hexagonal boron nitride on Ni(111): reactivity and electronic structure. <i>2D Materials</i> , 2017, 4, 035026.	2.0	28
49	Graphene-Templated Growth of Pd Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15934-15939.	1.5	27
50	Surface Reactions of Dicyclohexylmethane on Pt(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 20299-20311.	1.5	27
51	SO ₂ adsorption and thermal evolution on clean and oxygen precovered Pt(111). <i>Chemical Physics Letters</i> , 2010, 494, 188-192.	1.2	26
52	Site selectivity of benzene adsorption on Ni(111) studied by high-resolution x-ray photoelectron spectroscopy. <i>Physical Review B</i> , 2006, 73, .	1.1	25
53	Ethene adsorption and dehydrogenation on clean and oxygen precovered Ni(111) studied by high resolution x-ray photoelectron spectroscopy. <i>Journal of Chemical Physics</i> , 2010, 133, 014706.	1.2	25
54	Integrated X-ray photoelectron spectroscopy and DFT characterization of benzene adsorption on Pt(111), Pt(355) and Pt(322) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 20662.	1.3	25

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55	Controlled Catalytic Energy Release of the Norbornadiene/Quadricyclane Molecular Solar Thermal Energy Storage System on Ni(111). <i>Journal of Physical Chemistry C</i> , 2019, 123, 7654-7664.	1.5	25
56	Standing-wave excited soft x-ray photoemission microscopy: Application to Co microdot magnetic arrays. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	24
57	Model Catalytic Studies of Novel Liquid Organic Hydrogen Carriers: Indole, Indoline and Octahydroindole on Pt(111). <i>Chemistry - A European Journal</i> , 2017, 23, 14806-14818.	1.7	24
58	A HR-XPS study of the formation of h-BN on Ni(111) from the two precursors, ammonia borane and borazine. <i>Journal of Chemical Physics</i> , 2018, 149, 164709.	1.2	23
59	Adsorption and Reaction of Cyclohexene on a Ni(111) Surface. <i>Langmuir</i> , 2007, 23, 5541-5547.	1.6	20
60	Alkyl chain length-dependent surface reaction of dodecahydro- <i>N</i> -alkylcarbazoles on Pt model catalysts. <i>Journal of Chemical Physics</i> , 2014, 140, 204711.	1.2	20
61	Revisiting surface core-level shifts for ionic compounds. <i>Physical Review B</i> , 2019, 100, .	1.1	20
62	Hard x-ray photoemission using standing-wave excitation applied to the MgO/Fe interface. <i>Physical Review B</i> , 2011, 83, .	1.1	19
63	Kinetics of the sulfur oxidation on palladium: A combined in situ x-ray photoelectron spectroscopy and density-functional study. <i>Journal of Chemical Physics</i> , 2012, 136, 094702.	1.2	19
64	Dicyclohexylmethane as a Liquid Organic Hydrogen Carrier: A Model Study on the Dehydrogenation Mechanism over Pd(111). <i>Catalysis Letters</i> , 2016, 146, 851-860.	1.4	19
65	From Flat Surfaces to Nanoparticles: In Situ Studies of the Reactivity of Model Catalysts. <i>Catalysis Letters</i> , 2017, 147, 2-19.	1.4	19
66	Spectroscopic Observation and Molecular Dynamics Simulation of Ga Surface Segregation in Liquid Pd-Ga Alloys. <i>Chemistry - A European Journal</i> , 2017, 23, 17701-17706.	1.7	19
67	Dehydrogenation of the liquid organic hydrogen carrier system 2-methylindole/2-methylindoline/2-methyloctahydroindole on Pt(111). <i>Journal of Chemical Physics</i> , 2019, 151, 144711.	1.2	19
68	Adsorption and reaction of SO ₂ on clean and oxygen precovered Pd(100) – a combined HR-XPS and DF study. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 16227.	1.3	18
69	Surface enrichment of Pt in Ga ₂ O ₃ films grown on liquid Pt/Ga alloys. <i>Surface Science</i> , 2016, 651, 16-21.	0.8	18
70	Surface chemistry of 2,3-dibromosubstituted norbornadiene/quadricyclane as molecular solar thermal energy storage system on Ni(111). <i>Journal of Chemical Physics</i> , 2019, 150, 184706.	1.2	17
71	Kinetic isotope effects and reaction intermediates in the decomposition of methyl on flat and stepped platinum (1 1 1) surfaces. <i>Chemical Physics Letters</i> , 2007, 442, 176-181.	1.2	16
72	Graphene-Supported Pd Nanoclusters Probed by Carbon Monoxide Adsorption. <i>Journal of Physical Chemistry C</i> , 2014, 118, 25097-25103.	1.5	15

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73	Pt-Ga Model SCALMS on Modified HOPG: Thermal Behavior and Stability in UHV and under Near-Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2562-2573.	1.5	15
74	Site blocking and CO/sulfur site exchange processes on stepped Pt surfaces. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 134018.	0.7	14
75	Adsorption and Reaction of SO ₂ on Graphene-Supported Pt Nanoclusters. <i>Topics in Catalysis</i> , 2015, 58, 573-579.	1.3	14
76	Keeping argon under a graphene lid—Argon intercalation between graphene and nickel(111). <i>Surface Science</i> , 2016, 643, 222-226.	0.8	13
77	Band Gap and Electronic Structure of an Epitaxial, Semiconducting Cr _{0.80} Al _{0.20} Thin Film. <i>Physical Review Letters</i> , 2010, 105, 236404.	2.9	12
78	Nondestructive characterization of a TiN metal gate: Chemical and structural properties by means of standing-wave hard x-ray photoemission spectroscopy. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	12
79	Gold intercalation of boron-doped graphene on Ni(111): XPS and DFT study. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 445002.	0.7	12
80	Hydrogenation and dehydrogenation of nitrogen-doped graphene investigated by X-ray photoelectron spectroscopy. <i>Surface Science</i> , 2015, 634, 89-94.	0.8	12
81	On the platinum-oxide formation under gas-phase and electrochemical conditions. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2017, 221, 44-57.	0.8	12
82	Gitter-Öffnung durch reduktive kovalente Volumen-Funktionalisierung von schwarzem Phosphor. <i>Angewandte Chemie</i> , 2019, 131, 5820-5826.	1.6	12
83	Model Catalytic Studies of Liquid Organic Hydrogen Carriers: Indole/Indoline/Octahydroindole on Ni(111). <i>Journal of Physical Chemistry C</i> , 2020, 124, 22559-22567.	1.5	11
84	Interaction between silver nanowires and CO on a stepped platinum surface. <i>Journal of Chemical Physics</i> , 2009, 131, 064702.	1.2	10
85	Influence of Steps on the Adsorption and Thermal Evolution of SO ₂ on Clean and Oxygen Precovered Pt Surfaces. <i>Journal of Physical Chemistry C</i> , 2010, 114, 19734-19743.	1.5	10
86	Ultrafast x-ray photoelectron spectroscopy in the microsecond time domain. <i>Review of Scientific Instruments</i> , 2013, 84, 093103.	0.6	10
87	Oxygen Functionalization of Hexagonal Boron Nitride on Ni(111). <i>Chemistry - A European Journal</i> , 2019, 25, 8884-8893.	1.7	10
88	Growth and stability of Pt nanoclusters from 1 to 50 atoms on h-BN/Rh(111). <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 21287-21295.	1.3	10
89	Reactivity of TiO ₂ Nanotube-Supported Platinum Particles in the CO Oxidation Reaction. <i>ChemCatChem</i> , 2017, 9, 564-572.	1.8	9
90	Solving the Puzzle of the Coexistence of Different Adsorption Geometries of Graphene on Ni(111). <i>Journal of Physical Chemistry C</i> , 2018, 122, 26105-26110.	1.5	9

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91	Pt Nanoclusters Sandwiched between Hexagonal Boron Nitride and Nanographene as van der Waals Heterostructures for Optoelectronics. ACS Applied Nano Materials, 2019, 2, 7019-7024.	2.4	9
92	Oxidation induced restructuring of Rh-Ga SCALMS model catalyst systems. Journal of Chemical Physics, 2020, 153, 104702.	1.2	9
93	Fabrication of layered nanostructures by successive electron beam induced deposition with two precursors: protective capping of metallic iron structures. Nanotechnology, 2011, 22, 475304.	1.3	8
94	Physical vapor deposition of Ga on polycrystalline Au surfaces studied using X-ray photoelectron spectroscopy. Surface Science, 2018, 677, 254-257.	0.8	8
95	Adsorption and reaction of acetylene on clean and oxygen-precovered Pd(100) studied with high-resolution X-ray photoelectron spectroscopy. Journal of Chemical Physics, 2013, 139, 164706.	1.2	7
96	Comparative study of the carbide-modified surfaces C_{110} and C_{100} on Mo(110) using high-resolution X-ray photoelectron spectroscopy. Physical Review B, 2015, 92, .	1.1	7
97	Reactivity of CO on Sulfur-Passivated Graphene-Supported Platinum Nanocluster Arrays. Journal of Physical Chemistry C, 2018, 122, 16008-16015.	1.5	7
98	Reaction of Hydrogen and Oxygen on <i>h</i> -BN. Journal of Physical Chemistry C, 2020, 124, 18141-18146.	1.5	7
99	Key Parameters for the Synthesis of Active and Selective Nanostructured 3d Metal Catalysts Starting from Coordination Compounds – Case Study: Nickel Mediated Reductive Amination. ChemCatChem, 2021, 13, 3257-3261.	1.8	7
100	Surface Chemistry of the Molecular Solar Thermal Energy Storage System $2,3\text{-}\epsilon\text{-Dicyano}\epsilon\text{-Norbornadiene/Quadricyclane}$ on Ni(111). ChemPhysChem, 2022, 23, .	1.0	7
101	Kinetic passivation of steps with sulfur and CO/S site exchange processes on stepped Pt surfaces. Chemical Physics Letters, 2008, 452, 94-98.	1.2	6
102	Bimetallic Pd-Pt alloy nanocluster arrays on graphene/Rh(111): formation, stability, and dynamics. Physical Chemistry Chemical Physics, 2018, 20, 21294-21301.	1.3	6
103	Identifying the Thermal Decomposition Mechanism of Guaiacol on Pt(111): An Integrated X-ray Photoelectron Spectroscopy and Density Functional Theory Study. Journal of Physical Chemistry C, 2018, 122, 4261-4273.	1.5	5
104	Catalysis at the limit. Nature Chemistry, 2018, 10, 995-996.	6.6	5
105	Ethylene: Its adsorption, reaction, and coking on Pt/h-BN/Rh(111) nanocluster arrays. Journal of Chemical Physics, 2020, 152, 224710.	1.2	5
106	[<i>cis</i> -(1,3-Diene) ₂ W(CO) ₂] Complexes as MOCVD Precursors for the Deposition of Thin Tungsten – Tungsten Carbide Films. Chemical Vapor Deposition, 2010, 16, 239-247.	1.4	4
107	Reactivity studies of ethylene, benzene and cyclohexane on carbide-modified Mo(110) using high resolution X-ray photoelectron spectroscopy. Surface Science, 2018, 678, 11-19.	0.8	4
108	Temperature-dependent XPS studies on Ga-In alloys through the melting-point. Surface Science, 2022, 717, 122008.	0.8	4

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109	Focused electron beam based direct-write fabrication of graphene and amorphous carbon from oxo-functionalized graphene on silicon dioxide. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 2683-2686.	1.3	3
110	Reactivity of CO and C ₂ H ₄ on Bimetallic Pt _x Ag _{1-x} /Pt(111) Surface Alloys Investigated by High-Resolution X-ray Photoelectron Spectroscopy. <i>ChemPhysChem</i> , 2018, 19, 1432-1440.	1.0	3
111	Model Catalytic Studies of the LOHC System 2,2'-Bipiperidine/2,2'-Bipyridine on Ni(111). <i>Journal of Physical Chemistry C</i> , 2021, 125, 8216-8223.	1.5	3
112	Reactivity and Passivation of Fe Nanoclusters on h-BN/Rh(111). <i>Chemistry - A European Journal</i> , 2021, 27, 17087-17093.	1.7	3
113	Surface oxidation-induced restructuring of liquid Pd-Ga SCALMS model catalysts. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 16324-16333.	1.3	3
114	Temperature-dependent dielectric anomalies in powder aerosol deposited ferroelectric ceramic films. <i>Journal of Materiomics</i> , 2022, 8, 1239-1250.	2.8	3
115	Reactivity of CO on Sulfur-Passivated Graphene-Supported Palladium Nanocluster Arrays. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1734-1741.	1.5	2
116	Selective Oxygen and Hydrogen Functionalization of the h-BN/Rh(111) Nanomesh. <i>Chemistry - A European Journal</i> , 2021, 27, 13172-13180.	1.7	2
117	Surface Reaction of CO on Carbide-Modified Mo(110). <i>Journal of Physical Chemistry C</i> , 2017, 121, 3133-3142.	1.5	1
118	Sulfur oxidation on graphene-supported platinum nanocluster arrays. <i>Chemical Physics Letters</i> , 2018, 708, 165-169.	1.2	1
119	Advanced and In-Situ Electron Microscopy Investigation of Phase Composition and Phase Transformation in Ga-Rh Liquid Metal Catalysts. <i>Microscopy and Microanalysis</i> , 2019, 25, 1878-1879.	0.2	1
120	A high-resolution X-ray photoelectron spectroscopy study on the adsorption and reaction of ethylene on Rh(1 1 1). <i>Chemical Physics Letters</i> , 2022, 797, 139595.	1.2	1
121	Frontispiece: Spectroscopic Observation and Molecular Dynamics Simulation of Ga Surface Segregation in Liquid Pd-Ga Alloys. <i>Chemistry - A European Journal</i> , 2017, 23, .	1.7	0
122	Reactivity of CO and C ₂ H ₄ on Bimetallic Pt _x Ag _{1-x} /Pt(111) Surface Alloys Investigated by High-Resolution X-ray Photoelectron Spectroscopy. <i>ChemPhysChem</i> , 2018, 19, 1423-1423.	1.0	0
123	Heterographenes. , 2014, , 1-15.		0