

Helmut Baltruschat

List of Publications by Year in descending order

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164
papers

5,613
citations

76196

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98622

67
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171
all docs

171
docs citations

171
times ranked

4119
citing authors

#	ARTICLE	IF	CITATIONS
1	Differential electrochemical mass spectrometry. Journal of the American Society for Mass Spectrometry, 2004, 15, 1693-1706.	1.2	301
2	A New Approach for Simultaneous DEMS and EQCM: Electrooxidation of Adsorbed CO on Pt and PtRu. Journal of the Electrochemical Society, 1999, 146, 1093-1098.	1.3	229
3	Investigation of the oxygen evolution reaction on Ti/IrO ₂ electrodes using isotope labelling and on-line mass spectrometry. Electrochemistry Communications, 2007, 9, 1969-1974.	2.3	226
4	Methanol oxidation on Pt, PtRu, and colloidal Pt electrocatalysts: a DEMS study of product formation. Journal of Electroanalytical Chemistry, 2001, 509, 163-169.	1.9	207
5	Formation of intermediates during methanol oxidation: A quantitative DEMS study. Journal of Applied Electrochemistry, 2001, 31, 759-765.	1.5	197
6	The co-catalytic effect of Sn, Ru and Mo decorating steps of Pt(111) vicinal electrode surfaces on the oxidation of CO. Electrochimica Acta, 2001, 46, 701-707.	2.6	149
7	Cyclic Voltammetry, FTIRS, and DEMS Study of the Electrooxidation of Carbon Monoxide, Formic Acid, and Methanol on Cyanide-Modified Pt(111) Electrodes. Langmuir, 2009, 25, 6500-6507.	1.6	149
8	Chlorine species evolution during electrochlorination on boron-doped diamond anodes: In-situ electrogeneration of Cl ₂ , Cl ₂ O and ClO ₂ . Electrochimica Acta, 2018, 281, 831-840.	2.6	141
9	CO and methanol oxidation at Pt-electrodes modified by Mo. Electrochimica Acta, 2002, 47, 3681-3692.	2.6	140
10	Online Monitoring of Electrochemical Carbon Corrosion in Alkaline Electrolytes by Differential Electrochemical Mass Spectrometry. Angewandte Chemie - International Edition, 2020, 59, 1585-1589.	7.2	124
11	DEMS study of ammonia oxidation on platinum basal planes. Journal of Electroanalytical Chemistry, 2006, 588, 331-338.	1.9	99
12	The influence of the surface structure on the adsorption of ethene, ethanol and cyclohexene as studied by DEMS. Electrochimica Acta, 1995, 40, 99-107.	2.6	95
13	Adlattice structure and hydrophobicity of Pt (111) in aqueous potassium iodide solutions. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1987, 222, 305-320.	0.3	82
14	Ru Decoration of Stepped Pt Single Crystals and the Role of the Terrace Width on the Electrocatalytic CO Oxidation. Langmuir, 2002, 18, 4659-4666.	1.6	82
15	Differential electrochemical mass spectrometry using smooth electrodes: adsorption and hydrogen/deuterium exchange reactions of benzene on platinum. Langmuir, 1990, 6, 953-957.	1.6	81
16	DEMS Study on Methanol Oxidation at Poly- and Monocrystalline Platinum Electrodes: The Effect of Anion, Temperature, Surface Structure, Ru Adatom, and Potential. Journal of Physical Chemistry C, 2007, 111, 7038-7048.	1.5	76
17	Could NO _x be released during mineralization of pollutants containing nitrogen by hydroxyl radical? Ascertaining the release of N-volatile species. Applied Catalysis B: Environmental, 2017, 207, 376-384.	10.8	76
18	Structure and composition of a platinum(111) surface as a function of pH and electrode potential in aqueous bromide solutions. Langmuir, 1986, 2, 828-835.	1.6	73

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19	SLIM: A Short-Linked, Highly Redox-Stable Trityl Label for High-Sensitivity In-Cell EPR Distance Measurements. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9767-9772.	7.2	72
20	The Adsorption of Unsaturated Organic Species at Single Crystal Electrodes Studied by Differential Electrochemical Mass Spectrometry. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1993, 97, 452-460.	0.9	70
21	Electrooxidation of ethanol at polycrystalline and platinum stepped single crystals: A study by differential electrochemical mass spectrometry. <i>Electrochimica Acta</i> , 2010, 55, 7951-7960.	2.6	68
22	Electrogeneration of inorganic chloramines on boron-doped diamond anodes during electrochemical oxidation of ammonium chloride, urea and synthetic urine matrix. <i>Water Research</i> , 2019, 160, 107-117.	5.3	68
23	On the influence of tin and bismuth UPD on Pt(111) and Pt(332) on the oxidation of CO. <i>Electrochimica Acta</i> , 1998, 44, 1379-1388.	2.6	66
24	Electrodesorption from single-crystal electrodes: analysis by differential electrochemical mass spectrometry. <i>Analytical Chemistry</i> , 1991, 63, 44-48.	3.2	64
25	A Highly Efficient Bifunctional Catalyst for Alkaline Air-Electrodes Based on a Ag and Co ₃ O ₄ Hybrid: RRDE and Online DEMS Insights. <i>Electrochimica Acta</i> , 2015, 151, 332-339.	2.6	58
26	Electrochemically induced mineralization of organics by molecular oxygen on boron-doped diamond electrode. <i>Electrochemistry Communications</i> , 2008, 10, 1215-1218.	2.3	55
27	How many surface atoms in Co ₃ O ₄ take part in oxygen evolution? Isotope labeling together with differential electrochemical mass spectrometry. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 25527-25536.	1.3	55
28	Formation of methylformate during methanol oxidation revisited: The mechanism. <i>Journal of Electroanalytical Chemistry</i> , 2011, 662, 204-212.	1.9	54
29	On the hydrogen evolution during the electrochemical oxidation of aldehydes at Ib metals. <i>Electrochimica Acta</i> , 1993, 38, 1067-1072.	2.6	49
30	Insights into electrochemical reactions by differential electrochemical mass spectrometry. <i>TrAC - Trends in Analytical Chemistry</i> , 2015, 70, 4-13.	5.8	49
31	Decoration of steps at Pt single crystal electrodes and its electrocatalytic effect. <i>Electrochimica Acta</i> , 1998, 43, 3035-3043.	2.6	48
32	Investigation of formic acid oxidation on Ti/IrO ₂ electrodes. <i>Electrochimica Acta</i> , 2009, 54, 2053-2061.	2.6	48
33	Electrochemical Characterization of Gold Stepped Surfaces Modified with Pd. <i>Langmuir</i> , 2006, 22, 4877-4884.	1.6	46
34	The electrochemical stability of model inhibitors: A dems study on adsorbed benzene, aniline and pyridine on mono- and polycrystalline Pt, Rh and Pd electrodes. <i>Electrochimica Acta</i> , 1994, 39, 561-576.	2.6	45
35	The influence of the single-crystal orientation on the electrocatalytic hydrogenation of benzene and the H ⁺ -D exchange. <i>Journal of Electroanalytical Chemistry</i> , 1993, 347, 93-109.	1.9	44
36	Oxygen reduction and oxygen evolution in DMSO based electrolytes: the role of the electrocatalyst. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 25593-25606.	1.3	44

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37	Calcium-Oxygen Batteries as a Promising Alternative to Sodium-Oxygen Batteries. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22179-22185.	1.5	44
38	Enhanced ammonia oxidation on BDD induced by inhibition of oxygen evolution reaction. <i>Electrochemistry Communications</i> , 2010, 12, 1199-1202.	2.3	43
39	Electrochemical Detection of Organic Gases: The Development of a Formaldehyde Sensor. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1990, 94, 996-1000.	0.9	42
40	Hydrogen evolution and Cu UPD at stepped gold single crystals modified with Pd. <i>Journal of Solid State Electrochemistry</i> , 2007, 11, 877-885.	1.2	42
41	A STM Investigation of Pt-Single Crystal Surfaces in Air and Electrolyte Solutions. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1992, 96, 525-530.	0.9	39
42	Electrochemical deposition of copper on stepped platinum surfaces in the [01] zone vicinal to the (100) plane. <i>Journal of Electroanalytical Chemistry</i> , 2008, 624, 228-240.	1.9	38
43	Oxidation of carbon monoxide, hydrogen peroxide and water at a boron doped diamond electrode: the competition for hydroxyl radicals. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 4616.	1.3	38
44	Quantitative Study for Oxygen Reduction and Evolution in Aprotic Organic Electrolytes at Gas Diffusion Electrodes by DEMS. <i>Journal of the Electrochemical Society</i> , 2015, 162, A479-A487.	1.3	38
45	Characterization of single-crystal electrode surfaces as a function of potential and pH by Auger spectroscopy and LEED. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1987, 217, 101-110.	0.3	35
46	The rate of anion and hydrogen adsorption on Pt(111) and Rh(111). <i>Electrochimica Acta</i> , 1998, 44, 909-918.	2.6	35
47	Towards a determination of the active surface area of polycrystalline and nanoparticle electrodes by Cu upd and CO oxidation. <i>Journal of Applied Electrochemistry</i> , 2006, 36, 1297-1306.	1.5	35
48	Scanning tunnelling microscopic investigation of iodine-covered Pt single-crystal electrodes. <i>Faraday Discussions</i> , 1992, 94, 317.	1.6	34
49	The adsorption of Sn on Pt(111) and its influence on CO adsorption as studied by XPS and FTIR. <i>Electrochimica Acta</i> , 2003, 49, 73-83.	2.6	34
50	On the rate of hydrogen and iodine adsorption on polycrystalline Pt and Pt(111). <i>Journal of Electroanalytical Chemistry</i> , 1994, 376, 127-133.	1.9	33
51	A Carbon-Free Ag-Co ₃ O ₄ Composite as a Bifunctional Catalyst for Oxygen Reduction and Evolution: Spectroscopic, Microscopic and Electrochemical Characterization. <i>Electrocatalysis</i> , 2017, 8, 540-553.	1.5	32
52	Spectroscopic investigation of electrochemically active compounds. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1988, 239, 361-374.	0.3	30
53	The adsorption of ethene at Pt single crystal electrodes. Desorption products and observation of multiple adsorption states by DEMS. <i>Journal of Electroanalytical Chemistry</i> , 1992, 340, 357-363.	1.9	30
54	Adsorption and hydrogenation of simple alkenes at Pt-group metal electrodes studied by DEMS: influence of the crystal orientation. <i>Surface Science</i> , 1995, 335, 333-342.	0.8	30

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55	Modified carbon-free silver electrodes for the use as cathodes in lithium-air batteries with an aqueous alkaline electrolyte. <i>Journal of Power Sources</i> , 2014, 265, 299-308.	4.0	30
56	Reduction and oxidation of adsorbed acetone at platinum electrodes studied by DEMS. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1989, 259, 207-215.	0.3	28
57	Numerical calculation of the limiting current for a cylindrical thin layer flow cell. <i>Electrochimica Acta</i> , 2009, 55, 430-438.	2.6	28
58	Determining Solubility and Diffusivity by Using a Flow Cell Coupled to a Mass Spectrometer. <i>ChemPhysChem</i> , 2016, 17, 1647-1655.	1.0	28
59	The electrochemical reactivity of toluene at porous Pt electrodes. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1988, 244, 273-286.	0.3	26
60	Mechanistic investigation of the oxygen reduction in magnesium ion-containing dimethyl sulfoxide. <i>Electrochimica Acta</i> , 2016, 200, 214-221.	2.6	26
61	A Comprehensive Study on Oxygen Reduction and Evolution from Lithium Containing DMSO Based Electrolytes at Gold Electrodes. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1765-A1775.	1.3	26
62	Role of Lattice Oxygen in the Oxygen Evolution Reaction on Co_3O_4 : Isotope Exchange Determined Using a Small-Volume Differential Electrochemical Mass Spectrometry Cell Design. <i>Analytical Chemistry</i> , 2019, 91, 12653-12660.	3.2	26
63	Nanotribology under electrochemical conditions: influence of a copper (sub)monolayer deposited on single crystal electrodes on friction forces studied with atomic force microscopy. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 3965.	1.3	25
64	Electrocatalytic Reactivity of Pd Monolayers and Monatomic Chains on Au. <i>Journal of Physical Chemistry C</i> , 2007, 111, 12320-12327.	1.5	25
65	Nanotribology at single crystal electrodes: Influence of ionic adsorbates on friction forces studied with AFM. <i>Electrochimica Acta</i> , 2008, 53, 6058-6063.	2.6	25
66	Scanning tunneling microscopy of Sn coadsorbed with Cu and CO on Pt(111) electrodes. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 4044-4050.	1.3	24
67	Investigation of Formic Acid Oxidation on Ti_2IrO Electrodes Using Isotope Labeling and Online Mass Spectrometry. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, E20.	2.2	24
68	The adsorption of ethene on vicinally stepped electrode surfaces and the effect of temperature. <i>Journal of Electroanalytical Chemistry</i> , 2009, 629, 1-14.	1.9	24
69	Quantitative DEMS study of ethanol oxidation: effect of surface structure and Sn surface modification. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 16115.	1.3	24
70	A new thin layer cell for battery related DEMS-experiments: the activity of redox mediators in the Li-O_2 cell. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 21447-21456.	1.3	24
71	Step decoration at Pt single crystal electrodes: role of the anion. <i>Journal of Electroanalytical Chemistry</i> , 1999, 467, 50-59.	1.9	23
72	Propene Oxidation and Hydrogenation on a Porous Platinum Electrode in Acidic Solution. <i>Journal of Physical Chemistry B</i> , 2003, 107, 4793-4800.	1.2	23

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73	The impact of solvent properties on the performance of oxygen reduction and evolution in mixed tetraglyme-dimethyl sulfoxide electrolytes for Li-O ₂ batteries: Mechanism and stability. <i>Electrochimica Acta</i> , 2017, 245, 967-980.	2.6	23
74	Electrochemical Reaction Order of the Oxygen Reduction Reaction in Li ⁺ -Containing DMSO. <i>Journal of Physical Chemistry C</i> , 2017, 121, 7677-7688.	1.5	23
75	Poly 1,5 diamionaphthalene supported Pt, Pd, Pt/Pd and Pd/Pt nanoparticles for direct formic acid oxidation. <i>Journal of Electroanalytical Chemistry</i> , 2019, 833, 231-241.	1.9	23
76	On the effect of tungsten on CO oxidation at Pt electrodes. <i>Journal of Solid State Electrochemistry</i> , 2003, 7, 614-618.	1.2	21
77	Temperature dependent formation of multiple adsorption states from ethene at polycrystalline Pt and Pt(111) electrodes studied by differential electrochemical mass spectrometry. <i>Journal of Electroanalytical Chemistry</i> , 2003, 554-555, 333-344.	1.9	21
78	A DEMS Study of Methanol and Formic Acid Oxidation on Boron-Doped Diamond Electrode. <i>Journal of the Electrochemical Society</i> , 2009, 156, E149.	1.3	21
79	Displacement of Ethene and Cyclohexene from Polycrystalline Pt and Pt(110) Electrodes. <i>Journal of Physical Chemistry B</i> , 2000, 104, 5762-5767.	1.2	20
80	Tip-Induced Nanostructuring of a Clean and Ethene-Modified Pt(111) Electrode with Cu. <i>Journal of Physical Chemistry B</i> , 2002, 106, 3673-3680.	1.2	20
81	Ethyne oxidation and hydrogenation on porous Pt electrode in acidic solution. <i>Journal of Electroanalytical Chemistry</i> , 2002, 519, 101-110.	1.9	20
82	Gaining Control over the Mechanism of Oxygen Reduction in Organic Electrolytes: The Effect of Solvent Properties. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8864-8872.	1.5	20
83	The point of zero charge of adsorbed monolayers: Pt(111) covered by Ag. <i>Electrochimica Acta</i> , 2002, 47, 1595-1599.	2.6	19
84	Hydrogen evolution during the oxidation of formaldehyde on Au. <i>Electrochimica Acta</i> , 2002, 47, 4485-4500.	2.6	19
85	The role of mono-atomic steps and of step decoration by Cu on the adsorption and hydrogenation of benzene and cyclohexene on Pt single crystal electrodes. <i>Electrochimica Acta</i> , 2003, 48, 3829-3839.	2.6	19
86	Activity of selenium modified ruthenium-electrodes and determination of the real surface area. <i>Journal of Applied Electrochemistry</i> , 2007, 37, 1485-1494.	1.5	19
87	Electrocatalytic Oxidation and Adsorption Rate of Methanol at Pt Stepped Single-Crystal Electrodes and Effect of Ru Step Decoration: A DEMS Study. <i>ChemPhysChem</i> , 2014, 15, 2029-2043.	1.0	19
88	On the structure of the Pt(100) and Pt(110) electrode surface in iodide solutions. <i>Journal of Electroanalytical Chemistry</i> , 1995, 395, 99-105.	1.9	18
89	Coadsorption, non-reactive displacement and cathodic desorption of ethene preadsorbed on Pd and Pt electrodes. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1998, 134, 155-164.	2.3	18
90	The electro-oxidation of water and alcohols at BDD in hexafluoroisopropanol. <i>Journal of Electroanalytical Chemistry</i> , 2013, 701, 1-6.	1.9	18

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91	Investigation of the complex influence of divalent cations on the oxygen reduction reaction in aprotic solvents. <i>Electrochimica Acta</i> , 2018, 273, 424-431.	2.6	17
92	Fast and Simultaneous Determination of Gas Diffusivities and Solubilities in Liquids Employing a Thin-Layer Cell Coupled to a Mass Spectrometer, Part II: Proof of Concept and Experimental Results. <i>Analytical Chemistry</i> , 2018, 90, 14150-14155.	3.2	17
93	K ₂ O electrochemistry: achieving highly reversible peroxide formation. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4286-4294.	1.3	17
94	Structure and composition of the Pt(s) [6(111) Å–(111)] step-terrace surface vs. pH and potential in aqueous Br ⁻ solutions. <i>Journal of Electroanalytical Chemistry and Interfacial Electrochemistry</i> , 1987, 217, 111-120.	0.3	16
95	Electrocatalytic hydrogenation and oxidation of aromatic compounds studied by DEMS: Benzene and p-dihydroxybenzene at ultrathin Pd films electrodeposited on Au(hkl) surfaces. <i>Journal of Colloid and Interface Science</i> , 2007, 314, 152-159.	5.0	16
96	DEMS Study of the Acetic Acid Oxidation on Boron-Doped Diamond Electrode. <i>Journal of the Electrochemical Society</i> , 2008, 155, E96.	1.3	16
97	New Cell for DEMS Applicable to Different Electrode Sizes. <i>Electrocatalysis</i> , 2012, 3, 39-47.	1.5	16
98	The formation of two Ag UPD layers on stepped Pt single crystal electrodes and their restructuring by co-adsorption of CO. <i>Electrochimica Acta</i> , 2009, 54, 4829-4836.	2.6	15
99	Mechanistic studies on boron-doped diamond: Oxidation of small organic molecules. <i>Electrochimica Acta</i> , 2013, 110, 560-569.	2.6	15
100	Iodide adsorption at Au(111) electrode in non-aqueous electrolyte: AC-voltammetry and EIS studies. <i>Electrochimica Acta</i> , 2020, 334, 135556.	2.6	15
101	Determination of the apparent transfer coefficient for CO oxidation on Pt(poly), Pt(111), Pt(665) and Pt(332) using a potential modulation technique. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 2190.	1.3	14
102	A DEMS study of the electrocatalytic hydrogenation and oxidation of p-dihydroxybenzene at polycrystalline and monocrystalline platinum electrodes. <i>Journal of Applied Electrochemistry</i> , 2006, 36, 1253-1260.	1.5	13
103	Methanol Oxidation on Carbon Supported Pt and Ru Modified Pt Nanoparticles: a Comparison with Single Crystal and Polycrystalline Electrodes. <i>Fuel Cells</i> , 2006, 6, 214-224.	1.5	13
104	Copper underpotential deposition on Ru quasi-single-crystal films. <i>Journal of Electroanalytical Chemistry</i> , 2010, 646, 68-74.	1.9	13
105	Molecular Adsorbates at Single-Crystal Platinum-Group Metals and Bimetallic Surfaces. <i>ChemPhysChem</i> , 2011, 12, 56-69.	1.0	13
106	On the Differential Capacitance and Potential of Zero Charge of Au(111) in Some Aprotic Solvents. <i>ChemElectroChem</i> , 2021, 8, 1817-1835.	1.7	13
107	DEMS measurements of anodic and cathodic decomposition reactions of electrolytes containing dimethylamine as constituent. <i>Electrochimica Acta</i> , 1992, 37, 759-761.	2.6	12
108	Local Formation of an Alloy by Atomic Contact between the STM Tip and the Substrate Surface. <i>ChemPhysChem</i> , 2003, 4, 1022-1024.	1.0	12

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109	Ethanol Stripping in Alkaline Medium: A DEMS Study. ECS Transactions, 2009, 25, 85-93.	0.3	12
110	Stick-slip behaviour on Au(111) with adsorption of copper and sulfate. Beilstein Journal of Nanotechnology, 2015, 6, 820-830.	1.5	12
111	Unraveling the role of electrolytes during electrochemical oxidation by differential electrochemical mass spectrometry. Electrochimica Acta, 2021, 387, 138521.	2.6	12
112	Adsorption and desorption reactions of bicyclic aromatic compounds at polycrystalline and Pt(111) studied by DEMS. Journal of Electroanalytical Chemistry, 2003, 550-551, 81-92.	1.9	11
113	Adsorption of crown ethers on single and polycrystalline platinum-electrodes. Journal of Electroanalytical Chemistry, 2005, 578, 259-271.	1.9	11
114	Conditions for the formation of nanostructures on electrode surfaces during atomic scale scratching. Surface Science, 2005, 597, 1-10.	0.8	10
115	The stability of adsorbed quinoline and cinchonine on poly- and monocrystalline platinum surfaces. Electrochimica Acta, 2006, 51, 5626-5635.	2.6	10
116	A New 2-Compartment Flow Through Cell for the Simultaneous Detection of Electrochemical Reaction Products by a Detection Electrode and Mass Spectroscopy. Electrochimica Acta, 2016, 214, 241-252.	2.6	10
117	Electrochemical Formation and Characterization of Surface Blocking Layers on Gold and Platinum by Oxygen Reduction in $\text{Mg}(\text{ClO}_4)_2$ in DMSO. Journal of the Electrochemical Society, 2018, 165, A2037-A2046.	1.3	10
118	Metal-Supported Perovskite as an Efficient Bifunctional Electrocatalyst for Oxygen Reduction and Evolution: Substrate Effect. Journal of the Electrochemical Society, 2021, 168, 034504.	1.3	10
119	A Chronoamperometric Differential Electrochemical Mass Spectroscopy Study on the Growth of Li_2O_2 and Its Effect on the Mechanism of Oxygen Reduction in Dimethylsulfoxide Based Electrolytes. Electrochimica Acta, 2017, 245, 1035-1047.	2.6	10
120	Local and global electrochemical nanostructuring of Pt and Au single crystal electrodes. Electrochimica Acta, 2003, 48, 3093-3105.	2.6	9
121	From Stepped Single Crystal Surfaces to Ordered Bimetallic Electrodes: Adsorption and Electrocatalysis as Studied by DEMS and STM. , 2007, , 471-537.		9
122	Fast and Simultaneous Determination of Gas Diffusivities and Solubilities in Liquids Employing a Thin-Layer Cell Coupled to a Mass Spectrometer, Part I: Setup and Methodology. Analytical Chemistry, 2018, 90, 14145-14149.	3.2	9
123	On the importance of ion pair formation and the effect of water in potassium-oxygen batteries. Electrochimica Acta, 2019, 313, 223-234.	2.6	9
124	Detection of hydrocarbons in air by adsorption on Pt-electrodes using continuous impedance measurements. Sensors and Actuators B: Chemical, 1997, 42, 31-37.	4.0	8
125	Mass spectrometric study of desorption and hydrogenation of biphenyl, naphthalene and t-butylbenzene on poly- and monocrystalline platinum electrodes. Journal of Electroanalytical Chemistry, 1999, 461, 90-93.	1.9	8
126	An approach to the atomic structure of bulk metallic overlayers using tip-induced layer-by-layer dissolution. Journal of Electroanalytical Chemistry, 2001, 500, 446-452.	1.9	8

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127	Electrochemical Deposition and Nanostructuring of As at Pt(111). <i>Langmuir</i> , 2003, 19, 7436-7444.	1.6	8
128	Co-adsorption of CO onto a Ag-modified Pt(111) – Restructuring of a Ag UPD layer monitored by EC-STM. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 1555.	1.3	8
129	Inverse modeling of thin layer flow cells for detection of solubility, transport and reaction coefficients from experimental data. <i>Electrochimica Acta</i> , 2016, 211, 1-10.	2.6	8
130	Quantitative Determination of H ₂ Se at Model Metal fcc(111) Selenide Surface: DEMS, STM, and AFM Studies. <i>Journal of Physical Chemistry C</i> , 2015, 119, 20515-20523.	1.5	7
131	Mono and dual hetero-structured M@poly-1,2 diaminoanthraquinone (M = Pt, Pd and Pt@Pd) catalysts for the electrooxidation of small organic fuels in alkaline medium. <i>RSC Advances</i> , 2019, 9, 1849-1858.	1.7	7
132	Stability of Tetraglyme for Reversible Magnesium Deposition from a Magnesium Aluminum Chloride Complex. <i>Journal of the Electrochemical Society</i> , 2019, 166, A245-A250.	1.3	7
133	Electrochemical Mass Spectrometry. , 2014, , 507-516.		7
134	Detection of co desorbing from the ni electrode surface by dems. <i>Journal of Electroanalytical Chemistry</i> , 1996, 415, 165-167.	1.9	6
135	Pressure modulation, a new dynamic technique for the electrochemical determination of adsorption, reaction and activation volumes. <i>Physical Chemistry Chemical Physics</i> , 2005, 7, 379-384.	1.3	6
136	The electrochemical oxidation of phenylenediamines. <i>Electrochimica Acta</i> , 2009, 54, 3129-3138.	2.6	6
137	Apparent transfer coefficient for ORR at polycrystalline platinum under convection conditions: a potential modulation study. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 1861-1867.	1.2	6
138	Pyridine on Au(111): A frictional transition controlled by electrochemical potential. <i>Electrochimica Acta</i> , 2015, 186, 427-435.	2.6	6
139	Friction force microscopy at a regularly stepped Au(665) electrode: Anisotropy effects. <i>Surface Science</i> , 2015, 631, 67-72.	0.8	6
140	Determination of the Activation Volume for CO Oxidation on Platinum by Pressure Modulation. <i>ChemPhysChem</i> , 2010, 11, 2798-2801.	1.0	5
141	Surface morphology and adlayer structure of Se on Rh(111). <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 6176-6186.	1.3	5
142	Unraveling the Mechanism of the Solution-Mediated Oxygen Reduction in Metal-O ₂ Batteries: The Importance of Ion Association. <i>ChemElectroChem</i> , 2019, 6, 6038-6049.	1.7	5
143	Adsorption of Iodide and Bromide on Au(111) Electrodes from Aprotic Electrolytes: Role of the Solvent. <i>ChemElectroChem</i> , 2020, 7, 4782-4793.	1.7	5
144	The Oxygen Reduction Reaction in Ca ²⁺ -Containing DMSO: Reaction Mechanism, Electrode Surface Characterization, and Redox Mediation**. <i>ChemSusChem</i> , 2021, 14, 428-440.	3.6	5

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145	Continuous Detection of Volatile Aromatic, Unsaturated or Halogenated Hydrocarbons in Air by Adsorption on Pt-Electrodes and Subsequent Oxidative Desorption. <i>Electroanalysis</i> , 2001, 13, 1191-1197.	1.5	4
146	Electrochemical Energy Conversion: Past, Present, and Future. <i>ChemPhysChem</i> , 2014, 15, 1903-1904.	1.0	4
147	Surface morphological studies of Nafion [®] /Pt(100) interface. <i>Electrochimica Acta</i> , 2014, 144, 141-146.	2.6	4
148	Electrochemical Reduction of O ₂ in Ca ²⁺ -Containing DMSO: Role of Roughness and Single Crystal Structure. <i>ChemSusChem</i> , 2021, 14, 2564-2575.	3.6	4
149	Antimony deposition onto Au(111) and insertion of Mg. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 2541-2552.	1.5	3
150	The mechanism of Li ₂ O ₂ -film formation and reoxidation – Influence of electrode roughness and single crystal surface structure. <i>Journal of Electroanalytical Chemistry</i> , 2020, 875, 114560.	1.9	3
151	In situ friction study of Ag Underpotential deposition (UPD) on Au(111) in aqueous electrolyte. <i>ChemPhysChem</i> , 2021, 22, 952-959.	1.0	3
152	Quasi-Continuous Determination of the Apparent Transfer Coefficient of Methanol Oxidation Using a Potential Modulation Technique Under Convection Conditions. <i>Electrocatalysis</i> , 2014, 5, 75-86.	1.5	2
153	Electrodeposition of silver on stepped platinum electrode surfaces with (1 0 0)-oriented terraces: Generation of confined reaction sites. <i>Journal of Electroanalytical Chemistry</i> , 2014, 716, 93-100.	1.9	2
154	Potential- and cation-dependent adsorption of acetonitrile on gold investigated via surface enhanced infrared absorption spectroscopy. <i>Electrochimica Acta</i> , 2020, 334, 135609.	2.6	2
155	Insertion of Magnesium into Antimony Layers on Au Electrodes: Kinetic Behaviour. <i>ChemElectroChem</i> , 2021, 8, 3726.	1.7	2
156	Oxygen Reduction on Rh(111) and Se-Modified Rh(111) Surfaces. <i>Electrocatalysis</i> , 2018, 9, 40-46.	1.5	1
157	Mixed Lithium and Sodium Ion Aprotic DMSO Electrolytes for Oxygen Reduction on Au and Pt Studied by DEMS and RRDE. <i>Electrocatalysis</i> , 2021, 12, 564-578.	1.5	1
158	Electrocatalytic Reactions of Chemisorbed Aromatic Compounds: Studies by ES, DEMS, STM and EC. <i>Modern Aspects of Electrochemistry</i> , 2010, , 275-313.	0.2	1
159	Comparative studies of ethylene glycol electrooxidation by Pt and Pd nanoparticles supported on different conducting polymers – A DEMS study. <i>Journal of Electroanalytical Chemistry</i> , 2020, 878, 114624.	1.9	1
160	Friction on l-lysine-modified Au(111) in a Tetraglyme Electrolyte. <i>ChemElectroChem</i> , 0, , .	1.7	1
161	Insights into the Kinetics of Redox Mediation for Li-O ₂ Batteries: A Dems and RRDE Study. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0
162	(Invited) Influencing the Catalytic Activity for Oxygen Reduction and Evolution in Aqueous and Non-Aqueous Electrolytes: Support and Cations. <i>ECS Meeting Abstracts</i> , 2018, , .	0.0	0

#	ARTICLE	IF	CITATIONS
163	Synergistic bifunctional catalytic effect at metal oxide-based catalyst for oxygen electrodes: influence of support and investigation in DMSO. ECS Meeting Abstracts, 2018, , .	0.0	0
164	Towards a generalized ORR mechanism in M ²⁺ containing DMSO – Oxygen reduction and evolution in Ca ²⁺ containing DMSO on atomically smooth and rough Pt. ChemElectroChem, 0, , .	1.7	0