I Chorkendorff

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#	Paper	IF	Citations
408	Combining theory and experiment in electrocatalysis: Insights into materials design. <i>Science</i> , 2017 , 355,	33.3	5239
407	Identification of active edge sites for electrochemical H2 evolution from MoS2 nanocatalysts. <i>Science</i> , 2007 , 317, 100-2	33.3	4319
406	Biomimetic hydrogen evolution: MoS2 nanoparticles as catalyst for hydrogen evolution. <i>Journal of the American Chemical Society</i> , 2005 , 127, 5308-9	16.4	2895
405	Computational high-throughput screening of electrocatalytic materials for hydrogen evolution. <i>Nature Materials</i> , 2006 , 5, 909-13	27	2624
404	Alloys of platinum and early transition metals as oxygen reduction electrocatalysts. <i>Nature Chemistry</i> , 2009 , 1, 552-6	17.6	2287
403	Progress and Perspectives of Electrochemical CO Reduction on Copper in Aqueous Electrolyte. <i>Chemical Reviews</i> , 2019 , 119, 7610-7672	68.1	1244
402	Molybdenum sulfides Efficient and viable materials for electro - and photoelectrocatalytic hydrogen evolution. <i>Energy and Environmental Science</i> , 2012 , 5, 5577	35.4	1094
401	Understanding the electrocatalysis of oxygen reduction on platinum and its alloys. <i>Energy and Environmental Science</i> , 2012 , 5, 6744	35.4	852
400	Design of a surface alloy catalyst for steam reforming. <i>Science</i> , 1998 , 279, 1913-5	33.3	852
399	Layered nanojunctions for hydrogen-evolution catalysis. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 3621-5	16.4	713
398	Discovery of a Ni-Ga catalyst for carbon dioxide reduction to methanol. <i>Nature Chemistry</i> , 2014 , 6, 320-	417.6	689
397	Hydrogen evolution on nano-particulate transition metal sulfides. <i>Faraday Discussions</i> , 2008 , 140, 219-31; discussion 297-317	3.6	672
396	Enabling direct H2O2 production through rational electrocatalyst design. <i>Nature Materials</i> , 2013 , 12, 1137-43	27	649
395	A rigorous electrochemical ammonia synthesis protocol with quantitative isotope measurements. <i>Nature</i> , 2019 , 570, 504-508	50.4	617
394	Role of Steps in N2 Activation on Ru(0001). <i>Physical Review Letters</i> , 1999 , 83, 1814-1817	7.4	597
393	Tuning the activity of Pt alloy electrocatalysts by means of the lanthanide contraction. <i>Science</i> , 2016 , 352, 73-6	33.3	575
392	Bioinspired molecular co-catalysts bonded to a silicon photocathode for solar hydrogen evolution. <i>Nature Materials</i> , 2011 , 10, 434-8	27	556

(2000-2008)

391	The nature of the active site in heterogeneous metal catalysis. <i>Chemical Society Reviews</i> , 2008 , 37, 216	3 -3 8.5	553	
390	Recent Development in Hydrogen Evolution Reaction Catalysts and Their Practical Implementation. Journal of Physical Chemistry Letters, 2015, 6, 951-7	6.4	526	
389	First principles calculations and experimental insight into methane steam reforming over transition metal catalysts. <i>Journal of Catalysis</i> , 2008 , 259, 147-160	7.3	488	
388	The importance of surface morphology in controlling the selectivity of polycrystalline copper for CO2 electroreduction. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 76-81	3.6	485	
387	Electrochemical Ammonia SynthesisThe Selectivity Challenge. ACS Catalysis, 2017, 7, 706-709	13.1	442	
386	2003,		435	
385	Quantifying the promotion of Cu catalysts by ZnO for methanol synthesis. <i>Science</i> , 2016 , 352, 969-74	33.3	397	
384	Using TiO2 as a conductive protective layer for photocathodic H2 evolution. <i>Journal of the American Chemical Society</i> , 2013 , 135, 1057-64	16.4	392	
383	Probing the Active Surface Sites for CO Reduction on Oxide-Derived Copper Electrocatalysts. Journal of the American Chemical Society, 2015 , 137, 9808-11	16.4	389	
382	Tuning the activity of Pt(111) for oxygen electroreduction by subsurface alloying. <i>Journal of the American Chemical Society</i> , 2011 , 133, 5485-91	16.4	385	
381	Structure sensitivity of the methanation reaction: H2-induced CO dissociation on nickel surfaces. <i>Journal of Catalysis</i> , 2008 , 255, 6-19	7.3	365	
380	Trends in the electrochemical synthesis of H2O2: enhancing activity and selectivity by electrocatalytic site engineering. <i>Nano Letters</i> , 2014 , 14, 1603-8	11.5	352	
379	Toward the Decentralized Electrochemical Production of H2O2: A Focus on the Catalysis. <i>ACS Catalysis</i> , 2018 , 8, 4064-4081	13.1	341	
378	Strategies for stable water splitting via protected photoelectrodes. <i>Chemical Society Reviews</i> , 2017 , 46, 1933-1954	58.5	331	
377	Direct observations of oxygen-induced platinum nanoparticle ripening studied by in situ TEM. <i>Journal of the American Chemical Society</i> , 2010 , 132, 7968-75	16.4	328	
376	Toward sustainable fuel cells. <i>Science</i> , 2016 , 354, 1378-1379	33.3	281	
375	The effect of size on the oxygen electroreduction activity of mass-selected platinum nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 4641-3	16.4	277	
374	Structure sensitivity of supported ruthenium catalysts for ammonia synthesis. <i>Journal of Molecular Catalysis A</i> , 2000 , 163, 19-26		276	

373	Hydrogen production using a molybdenum sulfide catalyst on a titanium-protected n(+)p-silicon photocathode. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 9128-31	16.4	270
372	Differential inelastic electron scattering cross sections from experimental reflection electron-energy-loss spectra: Application to background removal in electron spectroscopy. <i>Physical Review B</i> , 1987 , 35, 6570-6577	3.3	269
371	A combined X-Ray photoelectron and M?ssbauer emission spectroscopy study of the state of cobalt in sulfided, supported, and unsupported Co\$z.sbnd;Mo catalysts. <i>Journal of Catalysis</i> , 1982 , 77, 397-409	7.3	269
370	Oxygen evolution on well-characterized mass-selected Ru and RuO nanoparticles. <i>Chemical Science</i> , 2015 , 6, 190-196	9.4	248
369	Mass-selected nanoparticles of PtxY as model catalysts for oxygen electroreduction. <i>Nature Chemistry</i> , 2014 , 6, 732-8	17.6	234
368	Molecular Monolayers and Interfacial Electron Transfer of Pseudomonas aeruginosa Azurin on Au(111). <i>Journal of the American Chemical Society</i> , 2000 , 122, 4047-4055	16.4	233
367	Benchmarking the Stability of Oxygen Evolution Reaction Catalysts: The Importance of Monitoring Mass Losses. <i>ChemElectroChem</i> , 2014 , 1, 2075-2081	4.3	229
366	Impact of nanoparticle size and lattice oxygen on water oxidation on NiFeOxHy. <i>Nature Catalysis</i> , 2018 , 1, 820-829	36.5	212
365	Methane activation on Ni(1 1 1): Effects of poisons and step defects. Surface Science, 2005, 590, 127-13	7 1.8	211
364	Methanol synthesis on Cu(100) from a binary gas mixture of CO2 and H2. <i>Catalysis Letters</i> , 1994 , 26, 373	8-2381	203
363	Hydrogen Evolution on Supported Incomplete Cubane-type [Mo3S4]4+ Electrocatalysts. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17492-17498	3.8	200
362	Trends in low-temperature watergas shift reactivity on transition metals. <i>Journal of Catalysis</i> , 2005 , 229, 265-275	7.3	194
361	A Microkinetic Analysis of the Water as Shift Reaction under Industrial Conditions. <i>Journal of Catalysis</i> , 1996 , 158, 170-180	7.3	194
360	Quantification of zinc atoms in a surface alloy on copper in an industrial-type methanol synthesis catalyst. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 5941-5	16.4	187
359	Towards identifying the active sites on RuO2(110) in catalyzing oxygen evolution. <i>Energy and Environmental Science</i> , 2017 , 10, 2626-2637	35.4	185
358	Pt5Gd as a highly active and stable catalyst for oxygen electroreduction. <i>Journal of the American Chemical Society</i> , 2012 , 134, 16476-9	16.4	185
357	From fundamental studies of reactivity on single crystals to the design of catalysts. <i>Surface Science Reports</i> , 1999 , 35, 163-222	12.9	185
356	New cubic perovskites for one- and two-photon water splitting using the computational materials repository. <i>Energy and Environmental Science</i> , 2012 , 5, 9034	35.4	178

35	55	Ostwald ripening in a Pt/SiO2 model catalyst studied by in situ TEM. <i>Journal of Catalysis</i> , 2011 , 281, 147	'- 9 55	157	
35	54	The Pt(111)/electrolyte interface under oxygen reduction reaction conditions: an electrochemical impedance spectroscopy study. <i>Langmuir</i> , 2011 , 27, 2058-66	4	157	
35	53	Molecular beam study of dissociative sticking of methane on Ni(100). <i>Journal of Chemical Physics</i> , 1995 , 102, 8255-8263	3.9	156	
35	52	Dissociative adsorption of N on ru(0001): A surface reaction totally dominated by steps. <i>Journal of Catalysis</i> , 2000 , 192, 381-390	7.3	150	
35	51	Adsorption-driven surface segregation of the less reactive alloy component. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2404-7	16.4	142	
35	50	A high-porosity carbon molybdenum sulphide composite with enhanced electrochemical hydrogen evolution and stability. <i>Chemical Communications</i> , 2013 , 49, 4965-7	5.8	136	
34	19	Minimizing the use of platinum in hydrogen-evolving electrodes. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 1476-7	16.4	134	
34	₁ 8	Acetaldehyde as an Intermediate in the Electroreduction of Carbon Monoxide to Ethanol on Oxide-Derived Copper. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 1450-4	16.4	134	
34	17	Insights into the carbon balance for CO2 electroreduction on Cu using gas diffusion electrode reactor designs. <i>Energy and Environmental Science</i> , 2020 , 13, 977-985	35.4	133	
34	1 6	Hydrogen adsorption on palladium and palladium hydride at 1 bar. Surface Science, 2010, 604, 718-729	1.8	132	
34	1 5	Synthesis of methanol from a mixture of H2 and CO2 on Cu(100). Surface Science, 1994, 318, 267-280	1.8	132	
34	14	Electrified methane reforming: A compact approach to greener industrial hydrogen production. <i>Science</i> , 2019 , 364, 756-759	33.3	131	
34	13	Toward an Active and Stable Catalyst for Oxygen Evolution in Acidic Media: Ti-Stabilized MnO2. <i>Advanced Energy Materials</i> , 2015 , 5, 1500991	21.8	131	
34	12	Scalability and feasibility of photoelectrochemical H2 evolution: the ultimate limit of Pt nanoparticle as an HER catalyst. <i>Energy and Environmental Science</i> , 2015 , 8, 2991-2999	35.4	127	
34	ļ 1	2-Photon tandem device for water splitting: comparing photocathode first versus photoanode first designs. <i>Energy and Environmental Science</i> , 2014 , 7, 2397-2413	35.4	112	
34	1 0	Surface science based microkinetic analysis of ammonia synthesis over ruthenium catalysts. <i>Journal of Catalysis</i> , 2000 , 192, 391-399	7.3	110	
33	39	Intermetallic GaPd2 Nanoparticles on SiO2 for Low-Pressure CO2 Hydrogenation to Methanol: Catalytic Performance and In Situ Characterization. <i>ACS Catalysis</i> , 2015 , 5, 5827-5836	13.1	108	
33	38	CO2 Electroreduction on Well-Defined Bimetallic Surfaces: Cu Overlayers on Pt(111) and Pt(211). Journal of Physical Chemistry C, 2013, 117, 20500-20508	3.8	106	

337	Ammonia synthesis with barium-promoted irondobalt alloys supported on carbon. <i>Journal of Catalysis</i> , 2003 , 214, 327-335	7.3	104
336	Enhancing Activity for the Oxygen Evolution Reaction: The Beneficial Interaction of Gold with Manganese and Cobalt Oxides. <i>ChemCatChem</i> , 2015 , 7, 149-154	5.2	99
335	Layered Nanojunctions for Hydrogen-Evolution Catalysis. <i>Angewandte Chemie</i> , 2013 , 125, 3709-3713	3.6	99
334	Methanol Synthesis from CO2, CO, and H2over Cu(100) and Ni/Cu(100). <i>Journal of Catalysis</i> , 1999 , 181, 271-279	7.3	99
333	Transient behavior of Cu/ZnO-based methanol synthesis catalysts. <i>Journal of Catalysis</i> , 2009 , 262, 65-72	27.3	97
332	Opportunities and challenges in the electrocatalysis of CO2 and CO reduction using bifunctional surfaces: A theoretical and experimental study of Auta alloys. <i>Journal of Catalysis</i> , 2016 , 343, 215-231	7.3	96
331	Silicon protected with atomic layer deposited TiO2: durability studies of photocathodic H2 evolution. <i>RSC Advances</i> , 2013 , 3, 25902	3.7	95
330	Modification of Ni(111) reactivity toward CH4, CO, and D2 by two-dimensional alloying. <i>Journal of Chemical Physics</i> , 1996 , 104, 7289-7295	3.9	95
329	Analysis of Mass Flows and Membrane Cross-over in CO Reduction at High Current Densities in an MEA-Type Electrolyzer. <i>ACS Applied Materials & Densities in Action 2019</i> , 11, 41281-41288	9.5	90
328	Dissociation of CH4 on Ni(111) and Ru(0001). Surface Science, 2002, 497, 183-193	1.8	90
327	Design of an active site towards optimal electrocatalysis: overlayers, surface alloys and near-surface alloys of Cu/Pt(111). <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 11845-8	16.4	89
326	Selective CO Methanation on Ru/TiO2 Catalysts: Role and Influence of MetalBupport Interactions. <i>ACS Catalysis</i> , 2015 , 5, 6753-6763	13.1	88
325	Iron-Treated NiO as a Highly Transparent p-Type Protection Layer for Efficient Si-Based Photoanodes. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3456-61	6.4	88
324	Xps study of chemisorption of CH4 on Ni(100). Surface Science, 1990, 227, 291-296	1.8	88
323	Methanol synthesis from CO2, CO and H2 over Cu(1 0 0) and Cu(1 0 0) modified by Ni and Co. <i>Applied Catalysis A: General</i> , 2000 , 191, 97-109	5.1	87
322	Chemisorption of Methane on Ni(100) and Ni(111) Surfaces with Preadsorbed Potassium. <i>Journal of Catalysis</i> , 1999 , 187, 238-244	7.3	86
321	Identical locations transmission electron microscopy study of Pt/C electrocatalyst degradation during oxygen reduction reaction. <i>Journal of Power Sources</i> , 2011 , 196, 6085-6091	8.9	85
320	Formate synthesis on Cu(100). <i>Surface Science</i> , 1992 , 261, 191-206	1.8	85

319	Protection of p(+)-n-Si Photoanodes by Sputter-Deposited Ir/IrOx Thin Films. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 1948-52	6.4	84
318	Is There Anything Better than Pt for HER?. ACS Energy Letters, 2021, 6, 1175-1180	20.1	83
317	Reconstruction of Cu(100) by adsorption of atomic hydrogen. Surface Science, 1991, 248, 35-44	1.8	82
316	Intermetallic compounds of Ni and Ga as catalysts for the synthesis of methanol. <i>Journal of Catalysis</i> , 2014 , 320, 77-88	7.3	81
315	Enhanced activity and stability of PtIIa and PtIIe alloys for oxygen electroreduction: the elucidation of the active surface phase. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 4234	13	80
314	MoS2-an integrated protective and active layer on n(+)p-Si for solar H2 evolution. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 20000-4	3.6	79
313	Benchmarking Pt-based electrocatalysts for low temperature fuel cell reactions with the rotating disk electrode: oxygen reduction and hydrogen oxidation in the presence of CO (review article). <i>Electrochimica Acta</i> , 2015 , 179, 647-657	6.7	78
312	Trends in Activity and Dissolution on RuO2 under Oxygen Evolution Conditions: Particles versus Well-Defined Extended Surfaces. <i>ACS Energy Letters</i> , 2018 , 3, 2045-2051	20.1	77
311	Activated dissociative chemisorption of methane on Ni(100): a direct mechanism under thermal conditions?. <i>Catalysis Letters</i> , 1995 , 32, 15-30	2.8	77
310	Operando identification of site-dependent water oxidation activity on ruthenium dioxide single-crystal surfaces. <i>Nature Catalysis</i> , 2020 , 3, 516-525	36.5	74
309	The interaction of carbon dioxide with Cu(100). Surface Science, 1992, 269-270, 352-359	1.8	74
308	The Difficulty of Proving Electrochemical Ammonia Synthesis. ACS Energy Letters, 2019, 4, 2986-2988	20.1	74
307	Crystalline TiO2: A Generic and Effective Electron-Conducting Protection Layer for Photoanodes and -cathodes. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 15019-15027	3.8	73
306	Oxygen Electroreduction Activity and X-Ray Photoelectron Spectroscopy of Platinum and Early Transition Metal Alloys. <i>ChemCatChem</i> , 2012 , 4, 341-349	5.2	71
305	Promotion through gas phase induced surface segregation: methanol synthesis from CO, CO2 and H2 over Ni/Cu(100). <i>Catalysis Letters</i> , 1998 , 54, 171-176	2.8	70
304	The interaction of CH4 at high temperatures with clean and oxygen precovered Cu(100). <i>Surface Science</i> , 1992 , 264, 95-102	1.8	70
303	The enhanced activity of mass-selected PtxGd nanoparticles for oxygen electroreduction. <i>Journal of Catalysis</i> , 2015 , 328, 297-307	7.3	68
302	Dynamical Properties of a Ru/MgAl2O4 Catalyst during Reduction and Dry Methane Reforming. Journal of Physical Chemistry C, 2012 , 116, 21407-21415	3.8	68

301	Screening of electrocatalytic materials for hydrogen evolution. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 10536-41	3.6	68
300	Formation of a pB heterojunction on GaP photocathodes for H2 production providing an open-circuit voltage of 710 mV. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 6847-6853	13	66
299	Effects of plasmon excitation on photocatalytic activity of Ag/TiO2 and Au/TiO2 nanocomposites. <i>Journal of Catalysis</i> , 2013 , 307, 214-221	7.3	65
298	Designing surface alloys with specific active sites. <i>Catalysis Letters</i> , 1996 , 40, 131-135	2.8	65
297	Absence of Oxidized Phases in Cu under CO Reduction Conditions. ACS Energy Letters, 2019, 4, 803-804	20.1	64
296	Back-illuminated Si photocathode: a combined experimental and theoretical study for photocatalytic hydrogen evolution. <i>Energy and Environmental Science</i> , 2015 , 8, 650-660	35.4	63
295	Effect of impurities on structural and electrochemical properties of the NiI/SZ interface. <i>Solid State Ionics</i> , 2003 , 160, 27-37	3.3	63
294	Structure Sensitivity in the Electrocatalytic Reduction of CO with Gold Catalysts. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 3774-3778	16.4	62
293	CO dissociation on Ni: The effect of steps and of nickel carbonyl. <i>Surface Science</i> , 2008 , 602, 733-743	1.8	62
292	Co adsorption site exchange between step and terrace sites on Pt(112). Surface Science, 1987, 191, L813	B₁L % 18	62
291	Sulfide perovskites for solar energy conversion applications: computational screening and synthesis of the selected compound LaYS3. <i>Energy and Environmental Science</i> , 2017 , 10, 2579-2593	35.4	61
2 90	The Synthesis of Ammonia over a Ruthenium Single Crystal. <i>Journal of Catalysis</i> , 1998 , 178, 679-686	7.3	60
289	Importance of Surface IrO in Stabilizing RuO for Oxygen Evolution. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 947-955	3.4	58
288	The Ligand Effect: CO Desorption from Pt/Ru Catalysts. <i>Fuel Cells</i> , 2005 , 5, 429-435	2.9	58
287	Microstructural and chemical changes at the Ni/YSZ interface. Solid State Ionics, 2001, 144, 197-209	3.3	57
286	Comparison of the Performance of CoP-Coated and Pt-Coated Radial Junction n(+)p-Silicon Microwire-Array Photocathodes for the Sunlight-Driven Reduction of Water to H2(g). <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 1679-83	6.4	56
285	Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a Copper-Platinum(111) Alloy. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 2800-2805	16.4	56
284	Dissociative adsorption of hydrogen on Cu(100) at low temperatures. <i>Surface Science</i> , 1993 , 287-288, 79-83	1.8	56

283	Surface reaction pathways of methylamine on the Ni(111) surface. <i>Journal of Chemical Physics</i> , 1987 , 86, 4692-4700	3.9	56	
282	Adsorption and Interfacial Electron Transfer of SaccharomycesCerevisiae Yeast Cytochrome c Monolayers on Au(111) Electrodes. <i>Langmuir</i> , 2003 , 19, 3419-3427	4	55	
281	N2 dissociation on Fe(110) and Fe/Ru(0001): what is the role of steps?. Surface Science, 2001, 491, 183-	-19 <u>.4</u> 8	55	
280	A Versatile Method for Ammonia Detection in a Range of Relevant Electrolytes via Direct Nuclear Magnetic Resonance Techniques. <i>ACS Catalysis</i> , 2019 , 9, 5797-5802	13.1	54	
279	Quantification of Zinc Atoms in a Surface Alloy on Copper in an Industrial-Type Methanol Synthesis Catalyst. <i>Angewandte Chemie</i> , 2014 , 126, 6051-6055	3.6	54	
278	Mechanochemical Synthesis of FeB Materials. <i>Journal of Solid State Chemistry</i> , 1998 , 138, 114-125	3.3	54	
277	Gas phase photocatalytic water splitting with Rh2¶CryO3/GaN:ZnO in Freactors. <i>Energy and Environmental Science</i> , 2011 , 4, 2937	35.4	53	
276	Steam and CO2 reforming of methane over a Ru/ZrO2 catalyst. <i>Applied Catalysis A: General</i> , 2010 , 377, 158-166	5.1	53	
275	Comment on "Active sites for CO hydrogenation to methanol on Cu/ZnO catalysts". <i>Science</i> , 2017 , 357,	33.3	52	
274	Alloyed Ni-Fe nanoparticles as catalysts for NH3 decomposition. <i>Applied Catalysis A: General</i> , 2012 , 447-448, 22-31	5.1	52	
273	Electroreduction of CO on Polycrystalline Copper at Low Overpotentials. <i>ACS Energy Letters</i> , 2018 , 3, 634-640	20.1	50	
272	Increasing stability, efficiency, and fundamental understanding of lithium-mediated electrochemical nitrogen reduction. <i>Energy and Environmental Science</i> , 2020 , 13, 4291-4300	35.4	50	
271	Investigation of the role of oxygen induced segregation of Cu during Cu2O formation on Cu{1 0 0}, Ag/Cu{1 0 0} and Cu(Ag) alloy. <i>Surface Science</i> , 2005 , 583, 157-165	1.8	49	
270	Scanning-tunneling-microscopy studies of the S-induced reconstruction of Cu(100). <i>Physical Review B</i> , 1994 , 50, 8798-8806	3.3	48	
269	The morphology of mass selected ruthenium nanoparticles from a magnetron-sputter gas-aggregation source. <i>Journal of Nanoparticle Research</i> , 2010 , 12, 1249-1262	2.3	47	
268	Thermochemistry and micro-kinetic analysis of methanol synthesis on ZnO (0 0 0 1). <i>Journal of Catalysis</i> , 2014 , 309, 397-407	7.3	46	
267	Electrochemical impedance spectroscopy study of methanol oxidation on nanoparticulate PtRu direct methanol fuel cell anodes: Kinetics and performance evaluation. <i>Journal of Power Sources</i> , 2006 , 162, 1010-1022	8.9	46	
266	Selective CO Methanation on Highly Active Ru/TiO2 Catalysts: Identifying the Physical Origin of the Observed Activation/Deactivation and Loss in Selectivity. <i>ACS Catalysis</i> , 2018 , 8, 5399-5414	13.1	45	

265	Protection of Si photocathode using TiO2 deposited by high power impulse magnetron sputtering for H2 evolution in alkaline media. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 144, 758-765	6.4	45
264	Silicon protected with atomic layer deposited TiO2: conducting versus tunnelling through TiO2. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 15089	13	45
263	Operando XAS Study of the Surface Oxidation State on a Monolayer IrO on RuO and Ru Oxide Based Nanoparticles for Oxygen Evolution in Acidic Media. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 878-887	3.4	45
262	Effect of Particle Morphology on the Ripening of Supported Pt Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 5646-5653	3.8	44
261	New efficient catalyst for ammonia synthesis: barium-promoted cobalt on carbon. <i>Chemical Communications</i> , 2002 , 1206-7	5.8	44
260	Hydrogen evolution on Au(111) covered with submonolayers of Pd. <i>Physical Review B</i> , 2011 , 84,	3.3	43
259	Increased dissociation probability of CH4 on Co/Cu(111). Surface Science, 1998, 405, 62-73	1.8	43
258	Scalable Synthesis of Carbon-Supported Platinum[lanthanide and Rare-Earth Alloys for Oxygen Reduction. <i>ACS Catalysis</i> , 2018 , 8, 2071-2080	13.1	42
257	Self Blocking of CO Dissociation on a Stepped Ruthenium Surface. <i>Topics in Catalysis</i> , 2010 , 53, 357-364	2.3	42
256	CO Desorption Rate Dependence on CO Partial Pressure over Platinum Fuel Cell Catalysts. <i>Fuel Cells</i> , 2004 , 4, 309-319	2.9	42
255	Monolayer assemblies of a de novo designed 4-alpha-helix bundle carboprotein and its sulfur anchor fragment on Au(111) surfaces addressed by voltammetry and in situ scanning tunneling microscopy. <i>Journal of the American Chemical Society</i> , 2003 , 125, 94-104	16.4	42
254	Carbon catalysts for electrochemical hydrogen peroxide production in acidic media. <i>Electrochimica Acta</i> , 2018 , 272, 192-202	6.7	41
253	Probing the nanoscale structure of the catalytically active overlayer on Pt alloys with rare earths. <i>Nano Energy</i> , 2016 , 29, 249-260	17.1	40
252	The Effect of Size on the Oxygen Electroreduction Activity of Mass-Selected Platinum Nanoparticles. <i>Angewandte Chemie</i> , 2012 , 124, 4719-4721	3.6	40
251	Highly sensitive silicon microreactor for catalyst testing. Review of Scientific Instruments, 2009, 80, 1241	Q :17	40
250	Interaction of carbon dioxide with Cu overlayers on Pt(111). Surface Science, 2008, 602, 702-711	1.8	40
249	Revealing the Formation of Copper Nanoparticles from a Homogeneous Solid Precursor by Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2016 , 138, 3433-42	16.4	40
248	Dynamics of Surface Exchange Reactions Between Au and Pt for HER and HOR. <i>Journal of the Electrochemical Society</i> , 2009 , 156, B273	3.9	39

247	Dissociative sticking of CH4 on Ru(0001). Journal of Chemical Physics, 1999, 110, 2637-2642	3.9	39
246	Dissociative chemisorption of O2 on Cu(100). Effects of mechanical energy transfer and recoil. <i>Chemical Physics Letters</i> , 1993 , 216, 413-417	2.5	39
245	Mixed valence of Sm on metal single-crystal surfaces. <i>Physical Review B</i> , 1988 , 37, 4809-4812	3.3	39
244	Spectroscopic and structural investigations of the Yb?Al(110), Yb?Ni(110) and Yb?Si(111) interfaces as a function of temperature. <i>Surface Science</i> , 1985 , 152-153, 749-756	1.8	39
243	Direct observation of the dealloying process of a platinum-yttrium nanoparticle fuel cell cathode and its oxygenated species during the oxygen reduction reaction. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 28121-8	3.6	38
242	Dynamic Behavior of CuZn Nanoparticles under Oxidizing and Reducing Conditions. <i>Journal of Physical Chemistry C</i> , 2015 , 150122080137001	3.8	38
241	Suppression of the water splitting back reaction on GaN:ZnO photocatalysts loaded with core/shell cocatalysts, investigated using a Freactor. <i>Journal of Catalysis</i> , 2012 , 292, 26-31	7.3	38
240	The sticking probability for H2 on some transition metals at a hydrogen pressure of 1 bar. <i>Journal of Chemical Physics</i> , 2008 , 128, 034706	3.9	38
239	Photocatalytic methane decomposition over vertically aligned transparent TiO2 nanotube arrays. <i>Chemical Communications</i> , 2011 , 47, 2613-5	5.8	37
238	Methanol decomposition on Ni(111): Investigation of the C-O bond scission mechanism. <i>Surface Science</i> , 1987 , 183, 316-330	1.8	37
237	Cocatalyst Designing: A Regenerable Molybdenum-Containing Ternary Cocatalyst System for Efficient Photocatalytic Water Splitting. <i>ACS Catalysis</i> , 2015 , 5, 5530-5539	13.1	36
236	Pt Skin Versus Pt Skeleton Structures of Pt3Sc as Electrocatalysts for Oxygen Reduction. <i>Topics in Catalysis</i> , 2014 , 57, 245-254	2.3	36
235	Hydrogen implantation in Ni(111) D study of H2 desorption dynamics from the bulk. <i>Surface Science</i> , 1987 , 182, 375-389	1.8	36
234	Adsorption and dissociation of HCN on the Pt(111) and Pt(112) surfaces. Surface Science, 1988 , 203, 1-1	6 1.8	36
233	Angular distributions of H2 thermal desorption: Coverage dependence on Ni(111). <i>Journal of Chemical Physics</i> , 1986 , 85, 6186-6191	3.9	35
232	Polycrystalline and Single-Crystal Cu Electrodes: Influence of Experimental Conditions on the Electrochemical Properties in Alkaline Media. <i>Chemistry - A European Journal</i> , 2018 , 24, 17743-17755	4.8	35
231	Particle Size Effect on Platinum Dissolution: Considerations for Accelerated Stability Testing of Fuel Cell Catalysts. <i>ACS Catalysis</i> , 2020 , 10, 6281-6290	13.1	34
230	Role of ion-selective membranes in the carbon balance for CO electroreduction gas diffusion electrode reactor designs. <i>Chemical Science</i> , 2020 , 11, 8854-8861	9.4	34

229	Acid-Stable Oxides for Oxygen Electrocatalysis. ACS Energy Letters, 2020, 5, 2905-2908	20.1	34
228	Combined high-pressure cellultrahigh vacuum system for fast testing of model metal alloy catalysts using scanning mass spectrometry. <i>Review of Scientific Instruments</i> , 2004 , 75, 2082-2093	1.7	33
227	Thiol- and disulfide-modified oligonucleotide monolayer structures on polycrystalline and single-crystal Au(111) surfaces. <i>Journal of Solid State Electrochemistry</i> , 2004 , 8, 474-481	2.6	33
226	Is the observed hydrogenation of formate the rate-limiting step in methanol synthesis?. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1995 , 91, 1267		33
225	Operando investigation of Au-MnOx thin films with improved activity for the oxygen evolution reaction. <i>Electrochimica Acta</i> , 2017 , 230, 22-28	6.7	32
224	Hydrogen Production Using a Molybdenum Sulfide Catalyst on a Titanium-Protected n+p-Silicon Photocathode. <i>Angewandte Chemie</i> , 2012 , 124, 9262-9265	3.6	32
223	A comparative study of two techniques for determining photocatalytic activity of nitrogen doped TiO2 nanotubes under visible light irradiation: Photocatalytic reduction of dye and photocatalytic oxidation of organic molecules. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2011 , 222, 258	4.7 3-262	32
222	Adsorption of hydrogen on clean and modified magnesium films. <i>Physical Review B</i> , 2006 , 74,	3.3	31
221	Acetaldehyde as an Intermediate in the Electroreduction of Carbon Monoxide to Ethanol on Oxide-Derived Copper. <i>Angewandte Chemie</i> , 2016 , 128, 1472-1476	3.6	31
220	Synthesis and hydrogenation of formate on Cu(100) at high pressures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1992 , 10, 2277-2281	2.9	30
219	Benchmarking Pt and Pt-lanthanide sputtered thin films for oxygen electroreduction: fabrication and rotating disk electrode measurements. <i>Electrochimica Acta</i> , 2017 , 247, 708-721	6.7	29
218	Carrier-selective p- and n-contacts for efficient and stable photocatalytic water reduction. <i>Catalysis Today</i> , 2017 , 290, 59-64	5.3	29
217	Combined spectroscopy and microscopy of supported MoS2 nanoparticles. <i>Surface Science</i> , 2009 , 603, 1182-1189	1.8	29
216	Effect of alloying on carbon formation during ethane dehydrogenation. <i>Applied Catalysis A: General</i> , 2009 , 358, 269-278	5.1	29
215	Molecular beam study of N2 dissociation on Ru(0001). Physical Chemistry Chemical Physics, 2001 , 3, 200	7 ₃ 26011	29
214	Dissociative chemisorption of CH4 on Ni(100) with preadsorbed oxygen. <i>Surface Science</i> , 1990 , 234, 79-	86 .8	29
213	4p and 4d Auger spectra of atomic and solid Yb. <i>Physical Review B</i> , 1983 , 27, 945-954	3.3	29
212	Gas-phase photocatalysis in Ereactors. Chemical Engineering Journal, 2010, 160, 738-741	14.7	28

211	Assembled monolayers of Mo3S4(4+) clusters on well-defined surfaces. <i>Dalton Transactions</i> , 2006 , 3985-	-9.6	28
2 10	Surface segregation and mixed valency in dilute Yb-Al interdiffusion compounds. <i>Surface Science</i> , 1984 , 143, 177-187	1.8	28
209	Faradaic efficiency of O2 evolution on metal nanoparticle sensitized hematite photoanodes. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 1271-5	3.6	27
208	A general route for RuO2 deposition on metal oxides from RuO4. <i>Chemical Communications</i> , 2012 , 48, 967-9	5.8	27
207	Effect of oxygen on the hydrogenation properties of magnesium films. Surface Science, 2006, 600, 1363-	1.368	27
206	Enabling real-time detection of electrochemical desorption phenomena with sub-monolayer sensitivity. <i>Electrochimica Acta</i> , 2018 , 268, 520-530	6.7	26
205	Fine-tuning the activity of oxygen evolution catalysts: The effect of oxidation pre-treatment on size-selected Ru nanoparticles. <i>Catalysis Today</i> , 2016 , 262, 57-64	5.3	26
204	Deposition of methylammonium iodide evaporation - combined kinetic and mass spectrometric study <i>RSC Advances</i> , 2018 , 8, 29899-29908	3.7	26
203	Scanning kinetic spectroscopy and temperature-programmed desorption studies of the adsorption and decomposition of hydrogen cyanide on the nickel(111) surface. <i>The Journal of Physical Chemistry</i> , 1988 , 92, 471-476		26
202	High Specific and Mass Activity for the Oxygen Reduction Reaction for Thin Film Catalysts of Sputtered Pt3Y. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700311	4.6	25
201	Towards the elucidation of the high oxygen electroreduction activity of PtxY: surface science and electrochemical studies of Y/Pt(111). <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 13718-25	3.6	25
200	Probing adsorption phenomena on a single crystal Pt-alloy surface under oxygen reduction reaction conditions. <i>Electrochimica Acta</i> , 2012 , 82, 517-523	6.7	25
199	Support effects and catalytic trends for water gas shift activity of transition metals. <i>Journal of Molecular Catalysis A</i> , 2010 , 315, 163-170		25
198	Isotopic exchange of CO adsorbed on Pt(111). <i>Journal of Physical Chemistry B</i> , 2005 , 109, 10285-90	3.4	25
197	The Yb?Ni interface studied with photoemission spectroscopy. <i>Surface Science</i> , 1985 , 160, 587-598	1.8	25
196	A cell for the controllable thermal treatment and electrochemical characterisation of single crystal alloy electrodes. <i>Electrochemistry Communications</i> , 2012 , 23, 33-36	5.1	24
195	A comparative STM study of Ru nanoparticles deposited on HOPG by mass-selected gas aggregation versus thermal evaporation. <i>Surface Science</i> , 2009 , 603, 3420-3430	1.8	24
194	Methane Steam Reforming Kinetics for a Rhodium-Based Catalyst. <i>Catalysis Letters</i> , 2010 , 140, 90-97	2.8	24

193	Quantitative analysis of reflection electron energy loss spectra of aluminum. <i>Solid State Communications</i> , 1986 , 57, 77-79	1.6	24
192	Selective CO methanation on isostructural Ru nanocatalysts: The role of support effects. <i>Journal of Catalysis</i> , 2019 , 373, 103-115	7.3	23
191	Fingerprint Voltammograms of Copper Single Crystals under Alkaline Conditions: A Fundamental Mechanistic Analysis. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 1450-1455	6.4	23
190	The Interaction of Nitrogen with the (111) Surface of Iron at Low and at Elevated Pressures. <i>Journal of Catalysis</i> , 1997 , 168, 217-234	7:3	23
189	The sticking probability of hydrogen on Ni, Pd and Pt at a hydrogen pressure of 1 bar. <i>Topics in Catalysis</i> , 2007 , 46, 175-187	2.3	23
188	Methanol Synthesis on Potassium-Modified Cu(100) from CO + H2 and CO + CO2 + H2. <i>Topics in Catalysis</i> , 2003 , 22, 151-160	2.3	23
187	Tailoring Mixed-Halide, Wide-Gap Perovskites via Multistep Conversion Process. <i>ACS Applied Materials & Amp; Interfaces</i> , 2016 , 8, 14301-6	9.5	23
186	The effect of ammonia upon the electrocatalysis of hydrogen oxidation and oxygen reduction on polycrystalline platinum. <i>Journal of Power Sources</i> , 2012 , 220, 205-210	8.9	22
185	Quantitative Measurements of Photocatalytic CO-Oxidation as a Function of Light Intensity and Wavelength over TiO2 Nanotube Thin Films in EReactors. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 11162-11168	3.8	22
184	The initial behaviour of freshly etched copper in moderately acid, aerated chloride solutions. <i>Electrochimica Acta</i> , 2002 , 47, 4279-4290	6.7	22
183	Structural investigations of the Yb? Si(111) - 2x1, 5x1 and 3x1 overlayers. <i>Solid State Communications</i> , 1984 , 52, 283-286	1.6	22
182	Probing the active sites for CO dissociation on ruthenium nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 8005-12	3.6	21
181	Hydrogenation properties of catalyzed and non-catalyzed magnesium films. <i>Surface Science</i> , 2007 , 601, 1862-1869	1.8	21
180	Mixed Phase Pt-Ru Catalyst for Direct Methanol Fuel Cell Anode by Flame Aerosol Synthesis. Journal of the Electrochemical Society, 2005 , 152, A2357	3.9	21
179	Methods for nitrogen activation by reduction and oxidation. <i>Nature Reviews Methods Primers</i> , 2021 , 1,		21
178	Shining Light on Sulfide Perovskites: LaYS3 Material Properties and Solar Cells. <i>Chemistry of Materials</i> , 2019 , 31, 3359-3369	9.6	20
177	Mo3S4Clusters as an Effective H2Evolution Catalyst on Protected Si Photocathodes. <i>Journal of the Electrochemical Society</i> , 2014 , 161, H722-H724	3.9	20
176	Towards an atomistic understanding of electrocatalytic partial hydrocarbon oxidation: propene on palladium. <i>Energy and Environmental Science</i> , 2019 , 12, 1055-1067	35.4	20

(2010-2019)

175	Electrified Methane Reforming: Understanding the Dynamic Interplay. <i>Industrial & Dynamic Interplay</i> . <i>Industrial & Industrial & Indust</i>	3.9	20
174	Deactivating Carbon Formation on a Ni/Al2O3 Catalyst under Methanation Conditions. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 15556-15564	3.8	19
173	Effect of Dissolved Glassware on the Structure-Sensitive Part of the Cu(111) Voltammogram in KOH. <i>ACS Energy Letters</i> , 2019 , 4, 1645-1649	20.1	19
172	Back-Illuminated Si-Based Photoanode with Nickel Cobalt Oxide Catalytic Protection Layer. <i>ChemElectroChem</i> , 2016 , 3, 1546-1552	4.3	19
171	Methanation on mass-selected Ru nanoparticles on a planar SiO2 model support: The importance of under-coordinated sites. <i>Journal of Catalysis</i> , 2013 , 308, 282-290	7.3	19
170	Note: Anodic bonding with cooling of heat-sensitive areas. <i>Review of Scientific Instruments</i> , 2010 , 81, 016111	1.7	19
169	Oxidation of HCN on the Pt(111) and Pt(112) surfaces. Surface Science, 1988, 203, 17-32	1.8	19
168	Enhancement of lithium-mediated ammonia synthesis by addition of oxygen Science, 2021, 374, 1593-	1 <i>59</i> .7	19
167	New Platinum Alloy Catalysts for Oxygen Electroreduction Based on Alkaline Earth Metals. <i>Electrocatalysis</i> , 2017 , 8, 594-604	2.7	18
166	Structure Sensitivity in the Electrocatalytic Reduction of CO2 with Gold Catalysts. <i>Angewandte Chemie</i> , 2019 , 131, 3814-3818	3.6	18
165	Parallel Evaluation of the Bil3, BiOI, and Ag3Bil6 Layered Photoabsorbers. <i>Chemistry of Materials</i> , 2020 , 32, 3385-3395	9.6	18
164	Durability Testing of Photoelectrochemical Hydrogen Production under Day/Night Light Cycled Conditions. <i>ChemElectroChem</i> , 2019 , 6, 106-109	4.3	18
163	Exploring the phase space of time of flight mass selected Pt(x)Y nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 26506-13	3.6	18
162	A generic model for photocatalytic activity as a function of catalyst thickness. <i>Journal of Catalysis</i> , 2012 , 289, 62-72	7.3	18
161	Light-Induced Reduction of Cuprous Oxide in an Environmental Transmission Electron Microscope. <i>ChemCatChem</i> , 2013 , 5, 2667-2672	5.2	18
160	Fast and sensitive method for detecting volatile species in liquids. <i>Review of Scientific Instruments</i> , 2015 , 86, 075006	1.7	18
159	Is the methanation reaction over Ru single crystals structure dependent?. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 4486-93	3.6	18
158	Combinedin situsmall- and wide-angle X-ray scattering studies of TiO2nanoparticle annealing to 1023 K. <i>Journal of Applied Crystallography</i> , 2010 , 43, 1400-1408	3.8	18

157	The sticking probability for H2 in presence of CO on some transition metals at a hydrogen pressure of 1 bar. <i>Surface Science</i> , 2008 , 602, 1863-1870	1.8	18
156	Growth and hydrogenation of ultra-thin Mg films on Mo(111). Surface Science, 2005, 584, 17-26	1.8	18
155	Transport properties of low-resistance ohmic contacts to InP. Thin Solid Films, 1993, 232, 215-227	2.2	18
154	3p resonance photoionization of the valence band in metallic Ca: Atomic and solid-state many-body effects. <i>Physical Review B</i> , 1984 , 30, 6251-6254	3.3	18
153	The Dissolution Dilemma for Low Pt Loading Polymer Electrolyte Membrane Fuel Cell Catalysts. Journal of the Electrochemical Society, 2020 , 167, 164501	3.9	18
152	The Yb/Al(110) interface studied by electron spectroscopy. <i>Surface Science</i> , 1984 , 138, 148-158	1.8	17
151	Assessing the defect tolerance of kesterite-inspired solar absorbers. <i>Energy and Environmental Science</i> , 2020 , 13, 3489-3503	35.4	17
150	Monitoring oxygen production on mass-selected iridium E antalum oxide electrocatalysts. <i>Nature Energy</i> , 2022 , 7, 55-64	62.3	17
149	Size-Dependence of the Melting Temperature of Individual Au Nanoparticles. <i>Particle and Particle Systems Characterization</i> , 2019 , 36, 1800480	3.1	16
148	Synthesis and characterization of FeNi/?-Al2O3 egg-shell catalyst for H2 generation by ammonia decomposition. <i>Applied Catalysis A: General</i> , 2015 , 505, 548-556	5.1	16
147	Photoelectrocatalysis and electrocatalysis on silicon electrodes decorated with cubane-like clusters. <i>Journal of Photonics for Energy</i> , 2012 , 2, 026001	1.2	16
146	Computational high-throughput screening of electrocatalytic materials for hydrogen evolution 2010 , 280-284		16
145	Hierarchical self-assembly of designed 2 x 2-alpha-helix bundle proteins on Au(111) surfaces. <i>Langmuir</i> , 2006 , 22, 6661-7	4	16
144	Growth and decomposition of lithium and lithium hydride on nickel. Surface Science, 2006, 600, 1468-14	17<u>4</u>8	16
143	Effects of steps and defects on O 2 dissociation on clean and modified Cu(1 0 0). <i>Surface Science</i> , 2003 , 538, 233-239	1.8	16
142	PtxGd alloy formation on Pt(111): Preparation and structural characterization. <i>Surface Science</i> , 2016 , 652, 114-122	1.8	15
141	Structural Modification of Platinum Model Systems under High Pressure CO Annealing. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 15353-15360	3.8	15
140	Improved Properties of the Catalytic Model System Ni/Ru(0001). Catalysis Letters, 2001, 77, 207-213	2.8	15

139	On the chemical nature of boundary lubrication of stainless steel by chlorine- and sulfur-containing EP-additives. <i>Wear</i> , 2000 , 246, 98-105	3.5	15
138	Interaction of hydrogen with carbidic carbon on Ni(100). Surface Science, 1993, 293, 133-144	1.8	15
137	Carbon dioxide chemistry on Cu(100). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1992 , 10, 2570-2575	2.9	15
136	Removal of low concentration contaminant species using photocatalysis: Elimination of ethene to sub-ppm levels with and without water vapor present. <i>Chemical Engineering Journal</i> , 2015 , 262, 648-65	7 ^{14.7}	14
135	Controlled Directional Growth of TiO[sub 2] Nanotubes. <i>Journal of the Electrochemical Society</i> , 2010 , 157, E69	3.9	14
134	Energetic mapping of Ni catalysts by detailed kinetic modeling. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 2360-70	3.4	14
133	Improved current transport properties of post annealed Y1Ba2Cu3O7⊠ thin films using Ag doping. <i>Journal of Applied Physics</i> , 1996 , 79, 7062-7068	2.5	14
132	High-intensity transition in the low-energy part of the electron-energy-loss spectra of Yb and related metals. <i>Physical Review B</i> , 1986 , 33, 3503-3506	3.3	14
131	Wide Band Gap Cu2SrSnS4 Solar Cells from Oxide Precursors. ACS Applied Energy Materials, 2019, 2, 734	4 6 .734	413
130	Self-sustained carbon monoxide oxidation oscillations on size-selected platinum nanoparticles at atmospheric pressure. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 2698-702	3.6	13
129	Design of an Active Site towards Optimal Electrocatalysis: Overlayers, Surface Alloys and Near-Surface Alloys of Cu/Pt(111). <i>Angewandte Chemie</i> , 2012 , 124, 12015-12018	3.6	13
128	H2 splitting on Pt, Ru and Rh nanoparticles supported on sputtered HOPG. <i>Surface Science</i> , 2012 , 606, 263-272	1.8	13
127	Design parameters for measurements of local catalytic activity on surfaces. <i>Applied Surface Science</i> , 2006 , 252, 3673-3685	6.7	13
126	Bottom-Up Design of a Copper-Ruthenium Nanoparticulate Catalyst for Low-Temperature Ammonia Oxidation. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 8711-8715	16.4	12
125	Engineering Ni-Mo-S Nanoparticles for Hydrodesulfurization. <i>Nano Letters</i> , 2018 , 18, 3454-3460	11.5	12
124	Reduced sintering of mass-selected Au clusters on SiO by alloying with Ti: an aberration-corrected STEM and computational study. <i>Nanoscale</i> , 2018 , 10, 2363-2370	7.7	12
123	Highly dispersed supported ruthenium oxide as an aerobic catalyst for acetic acid synthesis. <i>Applied Catalysis A: General</i> , 2012 , 433-434, 243-250	5.1	12
122	Ultralarge area MOS tunnel devices for electron emission. <i>Physical Review B</i> , 2007 , 76,	3.3	12

121	Origins of the Instability of Nonprecious Hydrogen Evolution Reaction Catalysts at Open-Circuit Potential. <i>ACS Energy Letters</i> , 2021 , 6, 2268-2274	20.1	12
120	On the stability of copper overlayers on Au(1 1 1) and Au(1 0 0) electrodes under low potential conditions and in the presence on CO and CO2. <i>Surface Science</i> , 2015 , 631, 155-164	1.8	11
119	Coarsening of Pd nanoparticles in an oxidizing atmosphere studied by in situ TEM. <i>Surface Science</i> , 2016 , 648, 278-283	1.8	11
118	Probing the crossover in CO desorption from single crystal to nanoparticulate Ru model catalysts. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 10333-41	3.6	11
117	Formate stability and carbonate hydrogenation on strained Cu overlayers on Pt(111). <i>Surface Science</i> , 2008 , 602, 2783-2788	1.8	11
116	Search for new catalysts from a fundamental basis. <i>Catalysis Today</i> , 2005 , 100, 191-197	5.3	11
115	AES and SAM studies of oxide formation on Inconel 600 at high temperatures. <i>Surface and Interface Analysis</i> , 1994 , 22, 441-444	1.5	11
114	Tm Studied by Electron Energy-Loss Spectroscopy and Auger Electron Spectroscopy. <i>Physica Scripta</i> , 1983 , T4, 169-172	2.6	11
113	Quantification of liquid products from the electroreduction of CO2 and CO using static headspace-gas chromatography and nuclear magnetic resonance spectroscopy. <i>Catalysis Today</i> , 2017 , 288, 54-62	5.3	10
112	ActivityBr Lack ThereofBf RuO2-Based Electrodes in the Electrocatalytic Reduction of CO2. Journal of Physical Chemistry C, 2019 , 123, 17765-17773	3.8	10
111	Quenching of TiO2 photo catalysis by silver nanoparticles. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2012 , 230, 10-14	4.7	10
110	The effect of atmospheric corona treatment on AA1050 aluminium. <i>Corrosion Science</i> , 2010 , 52, 2155-27	6⅓	10
109	On the stability of the CO adsorption-induced and self-organized CuPt surface alloy. <i>Surface Science</i> , 2010 , 604, 1733-1736	1.8	10
108	The Dissociative Chemisorption of Nitrogen on Iron(111) at Elevated Pressures. <i>Zeitschrift Fur Physikalische Chemie</i> , 1997 , 198, 123-134	3.1	10
107	Dehydrogenation of Light Alkanes Over Rhenium Catalysts on Conventional and Mesoporous MFI Supports. <i>Catalysis Letters</i> , 2006 , 109, 153-156	2.8	10
106	A corrosion study of laser-cut edges of aluminium and Al-3Mg alloy using CMT (corrosion measurement by titration) and EC (electrochemical) measurements. <i>Corrosion Science</i> , 1994 , 36, 759-77	1 ^{6.8}	10
105	THE Sm/Si(100) interface studied by electron spectroscopy. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1990 , 52, 67-78	1.7	10
104	Background subtraction in electron spectroscopy by use of reflection electron energy loss spectra. <i>Applied Surface Science</i> , 1987 , 29, 101-112	6.7	10

103	Increasing Current Density of Li-Mediated Ammonia Synthesis with High Surface Area Copper Electrodes. <i>ACS Energy Letters</i> ,36-41	20.1	10
102	Highly active, selective, and stable Pd single-atom catalyst anchored on N-doped hollow carbon sphere for electrochemical H2O2 synthesis under acidic conditions. <i>Journal of Catalysis</i> , 2021 , 393, 313-	-3723	10
101	Active-Phase Formation and Stability of Gd/Pt(111) Electrocatalysts for Oxygen Reduction: An In Situ Grazing Incidence X-Ray Diffraction Study. <i>Chemistry - A European Journal</i> , 2018 , 24, 12280-12290	4.8	10
100	Reduction of a Ni/Spinel Catalyst for Methane Reforming. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 1424-1432	3.8	9
99	Activity and Selectivity for O2 Reduction to H2O2 on Transition Metal Surfaces. <i>ECS Transactions</i> , 2013 , 58, 53-62	1	9
98	Metamorphosis of the mixed phase PtRu anode catalyst for direct methanol fuel cells after exposure of methanol: In situ and ex situ characterizations. <i>Journal of Power Sources</i> , 2007 , 173, 110-12	.0 ^{8.9}	9
97	Adsorption and surface dynamics of short DNA and LNA oligonucleotides on single-crystal Au(111) electrode surfaces. <i>Surface Science</i> , 2006 , 600, 122-127	1.8	9
96	Catalyst dynamics: consequences for classical kinetic descriptions of reactors. <i>Chemical Engineering Journal</i> , 2001 , 82, 219-230	14.7	9
95	Schottky barrier inhomogeneities in Au-Ni and Au-Cr contacts to InP-ohmic contact applications. <i>Applied Surface Science</i> , 1994 , 74, 287-295	6.7	9
94	TaS2 Back Contact Improving Oxide-Converted Cu2BaSnS4 Solar Cells. <i>ACS Applied Energy Materials</i> , 2020 , 3, 1190-1198	6.1	9
93	Anodic molecular hydrogen formation on Ru and Cu electrodes. <i>Catalysis Science and Technology</i> , 2020 , 10, 6870-6878	5.5	9
92	Evolution of intermetallic GaPd/SiO catalyst and optimization for methanol synthesis at ambient pressure. <i>Science and Technology of Advanced Materials</i> , 2019 , 20, 521-531	7.1	8
91	H2/D2 exchange reaction on mono-disperse Pt clusters: enhanced activity from minute O2 concentrations. <i>Catalysis Science and Technology</i> , 2016 , 6, 6893-6900	5.5	8
90	Strong Metal Support Interaction of Pt and Ru Nanoparticles Deposited on HOPG Probed by the H-D Exchange Reaction. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 5773-5780	3.8	8
89	Electrochemical removal of segregated silicon dioxide impurities from yttria stabilized zirconia surfaces at elevated temperatures. <i>Solid State Ionics</i> , 2011 , 190, 60-66	3.3	8
88	Ammonia synthesis on Au modified Fe(111) and Ag and Cu modified Fe(100) surfaces. <i>Surface Science</i> , 2003 , 543, 207-218	1.8	8
87	Biomimetic Hydrogen Evolution: MoS2 Nanoparticles as Catalyst for Hydrogen Evolution. <i>ChemInform</i> , 2005 , 36, no		8
86	Bottom-Up Design of a Copper R uthenium Nanoparticulate Catalyst for Low-Temperature Ammonia Oxidation. <i>Angewandte Chemie</i> , 2017 , 129, 8837-8841	3.6	7

85	SOLAR FUELS. A quick look at how photoelectrodes work. <i>Science</i> , 2015 , 350, 1030-1	33.3	7
84	Optimizing Ni Het a alloys into Ni2FeGa for the Hydrogenation of CO2 into Methanol. <i>ChemCatChem</i> , 2020 , 12, 3265-3273	5.2	7
83	1s2p resonant inelastic X-ray scattering combined dipole and quadrupole analysis method. <i>Journal of Synchrotron Radiation</i> , 2017 , 24, 296-301	2.4	7
82	Minimierung des Platinbedarfs bei wasserstoffentwickelnden Elektroden. <i>Angewandte Chemie</i> , 2011 , 123, 1512-1513	3.6	7
81	Temperature dependence of CO desorption kinetics at a novel Pt-on-Au/C PEM fuel cell anode. <i>Chemical Engineering Journal</i> , 2010 , 162, 314-321	14.7	7
80	The stabilization of adsorbed carbon dioxide by formate on Cu(100). Surface Science, 1993, 287-288, 20	8±281	7
79	Tracking oxygen atoms in electrochemical CO oxidation - Part II: Lattice oxygen reactivity in oxides of Pt and Ir. <i>Electrochimica Acta</i> , 2021 , 374, 137844	6.7	7
78	Back-Illuminated Si-Based Photoanode with Nickel Cobalt Oxide Catalytic Protection Layer. <i>ChemElectroChem</i> , 2016 , 3, 1517-1517	4.3	7
77	Effects of SiO2-doping on high-surface-area Ru/TiO2 catalysts for the selective CO methanation. <i>Applied Catalysis B: Environmental</i> , 2021 , 282, 119483	21.8	7
76	Towards understanding of electrolyte degradation in lithium-mediated non-aqueous electrochemical ammonia synthesis with gas chromatography-mass spectrometry <i>RSC Advances</i> , 2021 , 11, 31487-31498	3.7	7
75	In situ ETEM synthesis of NiGa alloy nanoparticles from nitrate salt solution. <i>Microscopy (Oxford, England)</i> , 2014 , 63, 397-401	1.3	6
74	Determination of CoreBhell Structures in Pd-Hg Nanoparticles by STEM-EDX. <i>ChemCatChem</i> , 2015 , 7, 3748-3752	5.2	6
73	Adsorbate induced surface alloy formation investigated by near ambient pressure X-ray photoelectron spectroscopy. <i>Catalysis Today</i> , 2015 , 244, 130-135	5.3	6
72	Electron emission from ultralarge area metal-oxide-semiconductor electron emitters. <i>Journal of Vacuum Science & Technology B</i> , 2009 , 27, 562		6
71	The Importance of Potential Control for Accurate Studies of Electrochemical CO Reduction. <i>ACS Energy Letters</i> , 2021 , 6, 1879-1885	20.1	6
70	Electrified methane reforming: Elucidating transient phenomena. <i>Chemical Engineering Journal</i> , 2021 , 425, 131509	14.7	6
69	Physical properties of the GaPd2 intermetallic catalyst in bulk and nanoparticle morphology. <i>Intermetallics</i> , 2015 , 67, 35-46	3.5	5
68	Experimental and First-Principles Spectroscopy of CuSrSnS and CuBaSnS Photoabsorbers. <i>ACS Applied Materials & District Materials & Dis</i>	9.5	5

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67	Elucidation of the Oxygen Reduction Volcano in Alkaline Media using a CopperPlatinum(111) Alloy. <i>Angewandte Chemie</i> , 2018 , 130, 2850-2855	3.6	5
66	Availability of elements for heterogeneous catalysis: Predicting the industrial viability of novel catalysts. <i>Chinese Journal of Catalysis</i> , 2018 , 39, 16-26	11.3	5
65	On the Possibilities and Considerations of Interfacing Ultra-High Vacuum Equipment with an Electrochemical Setup. <i>ChemPhysChem</i> , 2019 , 20, 3024-3029	3.2	5
64	A transparent Pyrex Ereactor for combined in situ optical characterization and photocatalytic reactivity measurements. <i>Review of Scientific Instruments</i> , 2013 , 84, 103910	1.7	5
63	H2 Splitting on Pt/Ru Alloys Supported on Sputtered HOPG. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 25351-25358	3.8	5
62	Subsurface excitations in a metal. <i>Physical Review B</i> , 2009 , 80,	3.3	5
61	Decomposition of lithium amide and imide films on nickel. Surface Science, 2007, 601, 830-836	1.8	5
60	Enhanced JcB of YBa2Cu3O7MAg ex situ annealed coevaporated films on LaAlO3 (100) substrates. <i>Applied Physics Letters</i> , 1994 , 65, 2350-2352	3.4	5
59	Formate synthesis on Cu(100). Journal of Physics Condensed Matter, 1991, 3, S59-S63	1.8	5
58	Tables of Auger transition amplitudes. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1983 , 32, 1-57	1.7	5
57	A spin promotion effect in catalytic ammonia synthesis <i>Nature Communications</i> , 2022 , 13, 2382	17.4	5
56	Ambient Pressure Hydrodesulfurization of Refractory Sulfur Compounds in Highly Sensitive EReactor Platform Coupled to a Time-of-Flight Mass Spectrometer. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 1699-1705	3.8	4
55	Investigating the coverage dependent behaviour of CO on Gd/Pt(111). <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 29732-29739	3.6	4
54	High mass resolution time of flight mass spectrometer for measuring products in heterogeneous catalysis in highly sensitive microreactors. <i>Review of Scientific Instruments</i> , 2012 , 83, 075105	1.7	4
53	Note: simple means for selective removal of the 365 nm line from the Hg spectrum using Dy. <i>Review of Scientific Instruments</i> , 2011 , 82, 096102	1.7	4
52	Nitrogen chemisorption on Fe nanoparticles studied by in situ MBsbauer spectroscopy. <i>Zeitschrift FII Physik D-Atoms Molecules and Clusters</i> , 1997 , 40, 152-154		4
51	Online Electrochemistry Mass Spectrometry Evaluation of the Acidic Oxygen Evolution Reaction at Supported Catalysts. <i>ACS Catalysis</i> , 2021 , 11, 12745-12753	13.1	4
50	Wireless Photoelectrochemical Water Splitting Using Triple-Junction Solar Cell Protected by TiO2. <i>Cell Reports Physical Science</i> , 2020 , 1, 100261	6.1	4

49	Semitransparent Selenium Solar Cells as a Top Cell for Tandem Photovoltaics. Solar Rrl, 2021, 5, 210011	7 .1	4
48	CO as a Probe Molecule to Study Surface Adsorbates during Electrochemical Oxidation of Propene. <i>ChemElectroChem</i> , 2021 , 8, 250-256	4.3	4
47	Copper-indium hydroxides derived electrocatalysts with tunable compositions for electrochemical CO2 reduction. <i>Journal of Energy Chemistry</i> , 2021 , 63, 278-278	12	4
46	Oxygen-Enhanced Chemical Stability of Lithium-Mediated Electrochemical Ammonia Synthesis <i>Journal of Physical Chemistry Letters</i> , 2022 , 4605-4611	6.4	4
45	Trace anodic migration of iridium and titanium ions and subsequent cathodic selectivity degradation in acid electrolysis systems. <i>Materials Today Energy</i> , 2019 , 14, 100352	7	3
44	Strontium zirconate as silicon and aluminum scavenger in yttria stabilized zirconia. <i>Solid State Ionics</i> , 2011 , 190, 82-87	3.3	3
43	Electron emission from MOS electron emitters with clean and cesium covered gold surface. <i>Applied Surface Science</i> , 2009 , 255, 7657-7662	6.7	3
42	Enhanced reactivity of pseudomorphic Co on Cu(111). <i>Catalysis Letters</i> , 1998 , 52, 1-5	2.8	3
41	Properties of Hydrogen 2008 , 71-147		3
40	H2S interaction with Cu(100)-(2 sqrt 2 x sqrt 2)R45 degrees-O: Formation of a metastable 05 52 -sulfur surface reconstruction. <i>Physical Review B</i> , 1995 , 52, 2076-2082	3.3	3
39	The p4g or pgg reconstruction on Cu(100). <i>Journal of Physics Condensed Matter</i> , 1991 , 3, S107-S110	1.8	3
38	Low Energy Auger Spectrum of Tungsten. <i>Physica Scripta</i> , 1983 , T4, 165-168	2.6	3
37	Tracking oxygen atoms in electrochemical CO oxidation Part I: Oxygen exchange via CO2 hydration. <i>Electrochimica Acta</i> , 2021 , 374, 137842	6.7	3
36	Interaction of CO with Gold in an Electrochemical Environment. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 17684-17689	3.8	3
35	Selenium Thin-Film Solar Cells with Cadmium Sulfide as a Heterojunction Partner. <i>ACS Applied Energy Materials</i> ,	6.1	3
34	Transients in Electrochemical CO Reduction Explained by Mass Transport of Buffers. ACS Catalysis,5155	-53.61	3
33	Controlled environment specimen transfer. <i>Microscopy and Microanalysis</i> , 2014 , 20, 1038-45	0.5	2
32	High purity H2/H2O/Ni/SZ electrodes at 500°C. <i>Solid State Ionics</i> , 2013 , 234, 11-18	3.3	2

31	An open-source data storage and visualization back end for experimental data. <i>Journal of the Association for Laboratory Automation</i> , 2014 , 19, 183-90		2
30	Towards hot electron mediated charge exchange in hyperthermal energy ion-surface interactions. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 084010	1.8	2
29	Advanced surface analysis on high-pressure CO 2 laser cut test pieces in pure and alloyed aluminum 1994 ,		2
28	Mobility and oxidation of boron in Fe?B and Fe?Ni?B glasses. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1993 , 76, 99-100	1.2	2
27	High- and low-energy Auger-electron transitions in ytterbium and gold: Theory and experiments. <i>Physical Review B</i> , 1986 , 33, 937-942	3.3	2
26	Bremsstrahlung induced Auger electron spectra (BAES) of transition metals. <i>Fresenius Zeitschrift Flanalytische Chemie</i> , 1987 , 329, 152-157		2
25	Analysis of the Facets of Cu-Based Electrocatalysts in Alkaline Media Using Pb Underpotential Deposition <i>Langmuir</i> , 2022 ,	4	2
24	Electrolyte acidification from anode reactions during lithium mediated ammonia synthesis. <i>Electrochemistry Communications</i> , 2022 , 134, 107186	5.1	2
23	Optimized CoNi Nanoparticle Composition for Curie-Temperature-Controlled Induction-Heated Catalysis. <i>ACS Applied Nano Materials</i> ,	5.6	2
22	Dynamic Interfacial Reaction Rates from Electrochemistry-Mass Spectrometry. <i>Analytical Chemistry</i> , 2021 , 93, 7022-7028	7.8	2
21	The low overpotential regime of acidic water oxidation part I: the importance of O2 detection. <i>Energy and Environmental Science</i> ,	35.4	2
20	Corrections to Intermetallic GaPd2 Nanoparticles on SiO2 for Low-Pressure CO2 Hydrogenation to Methanol: Catalytic Performance and In Situ Characterization []ACS Catalysis, 2018, 8, 938-938	13.1	1
19	Bio-inspired co-catalysts bonded to a silicon photocathode for solar hydrogen evolution 2011 ,		1
18	Adhesion of ceramics to Inconel 600 under various chemical conditions. <i>Surface and Interface Analysis</i> , 1995 , 23, 779-784	1.5	1
17	Response to Comment on Enhanced JcE of YBa2Cu3O7MAg ex situ annealed coevaporated films on LaAlO3 (100) substrates Appl. Phys. Lett. 67, 3650 (1995)]. <i>Applied Physics Letters</i> , 1995 , 67, 3652-3652	3.4	1
16	Novel micro-reactor flow cell for investigation of model catalysts using in situ grazing-incidence X-ray scattering. <i>Journal of Synchrotron Radiation</i> , 2016 , 23, 455-63	2.4	1
15	How to extract adsorption energies, adsorbate-adsorbate interaction parameters and saturation coverages from temperature programmed desorption experiments. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 24396-24402	3.6	1
14	Isotopic Effects in the Adsorption and Desorption of Hydrogen by Ni(111). <i>Springer Series in Surface Sciences</i> , 1987 , 71-88	0.4	1

13	X-ray Absorption Spectroscopy Investigation of Platinum adolinium Thin Films with Different Stoichiometry for the Oxygen Reduction Reaction. <i>Catalysts</i> , 2020 , 10, 978	4	1
12	Supercritical flow synthesis of PtPdFe alloyed nanoparticles with enhanced low-temperature activity and thermal stability for propene oxidation under lean exhaust gas conditions. <i>Catalysis Science and Technology</i> , 2019 , 9, 6691-6699	5.5	1
11	Chemisorbed oxygen or surface oxides steer the selectivity in Pd electrocatalytic propene oxidation observed by operando Pd L-edge X-ray absorption spectroscopy. <i>Catalysis Science and Technology</i> , 2021 , 11, 3347-3352	5.5	1
10	Preparation of high surface area Cu-Au bimetallic nanostructured materials by co-electrodeposition in a deep eutectic solvent. <i>Electrochimica Acta</i> , 2021 , 139309	6.7	1
9	Reversible Solid Oxide Cells91-101		1
8	Morphology of Ruthenium Particles for Methanation under Reactive Conditions. <i>Microscopy and Microanalysis</i> , 2014 , 20, 416-417	0.5	
7	Batch chemical microreactors: Reversible, in situ UHV sealing of a microcavity. <i>Microelectronic Engineering</i> , 2009 , 86, 1389-1392	2.5	
6	METAL SURFACES STUDIED BY ELECTRON ENERGY LOSS SPECTROSCOPY. <i>Annals of the New York Academy of Sciences</i> , 1983 , 410, 39-46	6.5	
5	Electronic and Geometrical Structures of Yb-Al (110), Yb-Si (111) and Yb-Ni (110) Interfaces <i>Studies in Surface Science and Catalysis</i> , 1985 , 21-31	1.8	
4	High Purity H2/H2O/Nickel/Stabilized Zirconia Electrodes at 500°C. Ceramic Engineering and Science Proceedings,159-168	0.1	
3	Nitrogen chemisorption on ⊞e nanoparticles studied by in situ M⊠sbauer spectroscopy 1997 , 152-154		
2	Identification of core-shell structures in high active Pt-alloy catalysts for oxygen reduction by electron spectroscopy 2016 , 173-174		

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