Youn-Geun Kim

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5237128/publications.pdf

Version: 2024-02-01

74 papers	2,266 citations	236833 25 h-index	223716 46 g-index
74 all docs	74 docs citations	74 times ranked	2517 citing authors

#	Article	IF	Citations
1	Operando Electrochemical Spectroscopy for CO on Cu(100) at pH 1 to 13: Validation of Grand Canonical Potential Predictions. ACS Catalysis, 2021, 11, 3173-3181.	5.5	6
2	Dramatic Change in the Step Edges of the Cu(100) Electrocatalyst upon Exposure to CO: Operando Observations by Electrochemical STM and Explanation Using Quantum Mechanical Calculations. ACS Catalysis, 2021, 11, 12068-12074.	5.5	9
3	Selective conversion of CO into ethanol on Cu(511) surface reconstructed from Cu(pc): Operando studies by electrochemical scanning tunneling microscopy, mass spectrometry, quartz crystal nanobalance, and infrared spectroscopy. Journal of Electroanalytical Chemistry, 2020, 857, 113704.	1.9	9
4	Reprint of "Selective conversion of CO into ethanol on Cu(511) surface reconstructed from Cu(pc): Operando studies by electrochemical scanning tunneling microscopy, mass spectrometry, quartz crystal nanobalance, and infrared spectroscopy". Journal of Electroanalytical Chemistry, 2020, 875, 114757.	1.9	0
5	Tracking the prelude of the electroreduction of carbon monoxide via its interaction with Cu(100): Studies by operando scanning tunneling microscopy and infrared spectroscopy. Catalysis Today, 2020, 358, 210-214.	2.2	9
6	Seriatim ECSTM-ECPMIRS of the adsorption of carbon monoxide on Cu(100) in alkaline solution at CO2-reduction potentials. Electrochemistry Communications, 2018, 91, 1-4.	2.3	26
7	Potential-Dependent Adsorption of CO and Its Low-Overpotential Reduction to CH₃CH₂OH on Cu(511) Surface Reconstructed from Cu(pc): Operando Studies by Seriatim STM-EQCN-DEMS. Journal of the Electrochemical Society, 2018, 165, J3350-J3354.	1.3	15
8	Electrochemical Surface Science of CO2 Reduction at Well-Defined Cu Electrodes: Surface Characterization by Emersion, Ex Situ, In Situ, and Operando Methods. , 2018, , 562-576.		4
9	Surface Reconstruction of Polycrystalline Cu Electrodes in Aqueous KHCO3 Electrolyte at Potentials in the Early Stages of CO2 Reduction. Electrocatalysis, 2018, 9, 526-530.	1.5	60
10	Electrocatalytic Reduction of CO2on Cu and Au/W Electrode Surfaces: Empirical (DEMS) Confirmation of Computational (DFT) Predictions. ECS Transactions, 2017, 75, 1-17.	0.3	1
11	Tuning the CO-Reduction Product Distribution by Structural Modification of the Cu Electrode Surface. ECS Transactions, 2017, 75, 87-97.	0.3	0
12	Reprint of: Surface reconstruction of pure-Cu single-crystal electrodes under CO-reduction potentials in alkaline solutions: A study by seriatim ECSTM-DEMS. Journal of Electroanalytical Chemistry, 2017, 793, 113-118.	1.9	7
13	Engineering Cu surfaces for the electrocatalytic conversion of CO ₂ : Controlling selectivity toward oxygenates and hydrocarbons. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5918-5923.	3.3	311
14	Electrochemical Formation of Germanene: pH 4.5. Journal of the Electrochemical Society, 2017, 164, D469-D477.	1.3	17
15	Surface reconstruction of pure-Cu single-crystal electrodes under CO-reduction potentials in alkaline solutions: A study by seriatim ECSTM-DEMS. Journal of Electroanalytical Chemistry, 2016, 780, 290-295.	1.9	92
16	Regulating the Product Distribution of CO Reduction by the Atomic-Level Structural Modification of the Cu Electrode Surface. Electrocatalysis, 2016, 7, 391-399.	1.5	56
17	In Situ Visualization of Lithium Ion Intercalation into MoS₂ Single Crystals using Differential Optical Microscopy with Atomic Layer Resolution. Journal of the American Chemical Society, 2016, 138, 3355-3361.	6.6	81
18	Influence of Redox-Inactive Cations on the Structure and Electrochemical Reactivity of Synthetic Birnessite, a Heterogeneous Analog for the Oxygen-Evolving Complex. Journal of Physical Chemistry C, 2016, 120, 15618-15631.	1.5	3

#	Article	IF	Citations
19	A DEMS Study of the Reduction of CO2, CO, and HCHO Pre-Adsorbed on Cu Electrodes: Empirical Inferences on the CO2RR Mechanism. Electrocatalysis, 2015, 6, 127-131.	1.5	27
20	Synthesis and Characterization of Atomically Flat Methyl-Terminated Ge(111) Surfaces. Journal of the American Chemical Society, 2015, 137, 9006-9014.	6.6	18
21	Synthesis, Characterization, and Reactivity of Ethynyl- and Propynyl-Terminated Si(111) Surfaces. Journal of Physical Chemistry C, 2015, 119, 19847-19862.	1.5	26
22	Overlayer Au-on-W Near-Surface Alloy for the Selective Electrochemical Reduction of CO2 to Methanol: Empirical (DEMS) Corroboration of a Computational (DFT) Prediction. Electrocatalysis, 2015, 6, 493-497.	1.5	13
23	Preparation and characterization of ultraflat Pt facets by atom-height-resolved differential optical microscopy. Surface Science, 2015, 631, 57-62.	0.8	6
24	Electrochemical surface science twenty years later: Expeditions into the electrocatalysis of reactions at the core of artificial photosynthesis. Surface Science, 2015, 631, 285-294.	0.8	22
25	The Evolution of the Polycrystalline Copper Surface, First to Cu(111) and Then to Cu(100), at a Fixed CO₂RR Potential: A Study by Operando EC-STM. Langmuir, 2014, 30, 15053-15056.	1.6	245
26	Cathodic regeneration of a clean and ordered Cu(1 0 0)-(1Ã—1) surface from an air-oxidized and disordered electrode: An operando STM study. Journal of Electroanalytical Chemistry, 2014, 734, 7-9.	1.9	25
27	Molecular catalysis that transpires only when the complex is heterogenized: Studies of a hydrogenase complex surface-tethered on polycrystalline and (1 1 1)-faceted gold by EC, PM-FT-IRRAS, HREELS, XPS and STM. Journal of Electroanalytical Chemistry, 2014, 716, 63-70.	1.9	10
28	Heterogenization of a Water-Insoluble Molecular Complex for Catalysis of the Proton-Reduction Reaction in Highly Acidic Aqueous Solutions. Electrocatalysis, 2014, 5, 226-228.	1.5	2
29	Structure and composition of Cu(hkl) surfaces exposed to O2 and emersed from alkaline solutions: Prelude to UHV-EC studies of CO2 reduction at well-defined copper catalysts. Journal of Electroanalytical Chemistry, 2014, 716, 101-105.	1.9	14
30	PtRu Nanofilm Formation by Electrochemical Atomic Layer Deposition (E-ALD). Langmuir, 2014, 30, 3254-3263.	1.6	13
31	Hydrogen Adsorption, Absorption, and Desorption at Palladium Nanofilms formed on Au(111) by Electrochemical Atomic Layer Deposition (E-ALD): Studies using Voltammetry and In Situ Scanning Tunneling Microscopy. Journal of Physical Chemistry C, 2013, 117, 15728-15740.	1.5	20
32	Preliminary Investigations of Ta Surface Chemistry in Aqueous Solutions of TeO2, and the Possible Formation of TaTe2. ECS Transactions, 2013, 53, 113-121.	0.3	0
33	Ta Surface Chemistry in Aqueous Solutions and the Possible Formation of TaTe2and TaS3. Journal of the Electrochemical Society, 2013, 160, D3278-D3284.	1.3	5
34	Direct Evidence of Homoepitaxial Growth in the Electrodeposition of Au Observed by Ultra-High Resolution Differential Optical Microscopy. Journal of the Electrochemical Society, 2013, 160, D361-D365.	1.3	11
35	Potential-induced phase transition of low-index Au single crystal surfaces in propylene carbonate solution. Physical Chemistry Chemical Physics, 2012, 14, 2286.	1.3	13
36	Electrochemical Atomic Layer Deposition (E-ALD) of Pt Nanofilms Using SLRR Cycles. Journal of the Electrochemical Society, 2012, 159, D616-D622.	1.3	39

#	Article	IF	Citations
37	Electrodeposition of CuInSe₂ (CIS) via Electrochemical Atomic Layer Deposition (E-ALD). Langmuir, 2012, 28, 3024-3031.	1.6	29
38	The Structure of Benzoquinone Chemisorbed on Pd(111): Simulation of EC-STM Images and HREELS Spectra by Density Functional Theory. Electrocatalysis, 2012, 3, 353-359.	1.5	4
39	Self-Assembly of Insoluble Porphyrins on Au(111) under Aqueous Electrochemical Control. Langmuir, 2011, 27, 14828-14833.	1.6	18
40	PbSeâ•PbTe Superlattice Formation via E-ALD. Journal of the Electrochemical Society, 2011, 158, D99.	1.3	16
41	Visualization of Single Atomic Steps on An Ultra-Flat Si(100) Surface by Advanced Differential Interference Contrast Microscopy. Electrochemical and Solid-State Letters, 2011, 14, H351.	2.2	8
42	Aqueous Electrodeposition of Ge Monolayers. Langmuir, 2010, 26, 2877-2884.	1.6	45
43	Electrochemical atomic layer deposition of copper nanofilms on ruthenium. Journal of Crystal Growth, 2010, 312, 1271-1276.	0.7	29
44	Electrocatalytic Reactions of Chemisorbed Aromatic Compounds: Studies by ES, DEMS, STM and EC. Modern Aspects of Electrochemistry, 2010, , 275-313.	0.2	1
45	Optimization of PbSe Nanofilms formation by Electrochemical Atomic Layer Deposition (ALD). ECS Transactions, 2009, 19, 245-272.	0.3	7
46	Copper Nanofilm Formation by Electrochemical ALD. Journal of the Electrochemical Society, 2009, 156, D261.	1.3	33
47	Cu nanofilm formation by electrochemical atomic layer deposition (ALD) in the presence of chloride ions. Journal of Electroanalytical Chemistry, 2008, 621, 205-213.	1.9	30
48	Electrodeposition of Ru by atomic layer deposition (ALD). Electrochimica Acta, 2008, 53, 6157-6164.	2.6	62
49	Copper Nano Film Formation Using Electrochemical ALD. ECS Transactions, 2007, 11, 103-112.	0.3	1
50	Copper Nanofilm Formation by Electrochemical Atomic Layer Deposition. Journal of the Electrochemical Society, 2007, 154, D260.	1.3	29
51	Pb Deposition on I-Coated Au(111). UHV-EC and EC-STM Studies. Langmuir, 2007, 23, 2539-2545.	1.6	21
52	Molecular Adsorption at Well-Defined Electrode Surfaces:â€‰ Hydroquinone on Pd(111) Studied by EC-STM. Langmuir, 2006, 22, 10762-10765.	1.6	11
53	Platinum Nanofilm Formation by EC-ALE via Redox Replacement of UPD Copper:Â Studies Using in-Situ Scanning Tunneling Microscopy. Journal of Physical Chemistry B, 2006, 110, 17998-18006.	1.2	118
54	Studies of Cu Atomic Layer Replacement, Formed by Underpotential Deposits, to Form Pt Nanofilms Using Electrochemical Atomic Layer Epitaxy. ECS Transactions, 2006, 1, 41-48.	0.3	6

#	Article	IF	Citations
55	The Formation Of Cu Nanofilm By Electrochemical ALD. ECS Transactions, 2006, 2, 329-335.	0.3	4
56	Molecular adsorption at well-defined electrode surfaces: benzene on Pd(1 1 1) studied by EC-STM and HREELS. Journal of Electroanalytical Chemistry, 2003, 554-555, 167-174.	1.9	10
57	Thin Films: Preparation, Characterization, Applications. , 2002, , .		18
58	Structure of ordered electrified interfaces: EC-STM of hydroquinone sulfonate at well-defined Pd(111) electrodes. Physical Chemistry Chemical Physics, 2001, 3, 3303-3306.	1.3	12
59	Electron-Transfer-Induced Molecular Reorientations: The Benzoquinone/Hydroquinone Reaction at Pd(111)-(â–¡3Ã—â–¡3)R30Â°-I Studied by EC-STM. Journal of Colloid and Interface Science, 2001, 236, 197-199.	5.0	12
60	Molecular chemisorption at well-defined Pd(111) electrode surfaces: hydroquinone sulfonate studied by UHV-EC-STM. Journal of Electroanalytical Chemistry, 2001, 500, 374-378.	1.9	15
61	Adsorbate-induced disorder-to-order surface reconstruction: iodine on Pd(111) revisited by EC-STM. Journal of Electroanalytical Chemistry, 2001, 509, 170-174.	1.9	15
62	Atom-Resolved EC-STM Studies of Anion Adsorption at Well-Defined Surfaces: Pd(111) in Sulfuric Acid Solution. Journal of Colloid and Interface Science, 2000, 227, 505-509.	5.0	49
63	UHVâ€“EC and ECâ€“STM studies of molecular chemisorption at well-defined surfaces: hydroquinone and benzoquinone on Pd(hkl). Electrochemistry Communications, 1999, 1, 135-138.	2.3	24
64	In Situ Scanning Tunneling Microscopy of Highly Ordered Adlayers of Aromatic Molecules on Well-Defined Pt(111) Electrodes in Solution:Â Benzoic Acid, Terephthalic Acid, and Pyrazine. Langmuir, 1999, 15, 7810-7815.	1.6	59
65	Selective and quantitative removal of Pd films from Pt substrates by adsorbed-iodine-catalyzed anodic stripping. Electrochimica Acta, 1998, 44, 1031-1036.	2.6	9
66	Atomic-Resolution Electrochemical Scanning Tunneling Microscopy:â€‰ Evidence of Iâˆ’Pd Place Exchange in the I(Ads)-Catalyzed Dissolution of Pd(111). Journal of Physical Chemistry B, 1998, 102, 6188-6192.	1.2	7
67	Underpotential Deposition of Copper on Iodine-Modified Pt(111):Â In Situ STM and ex Situ LEED Studies. Journal of Physical Chemistry B, 1998, 102, 3498-3505.	1.2	41
68	Cation Effects on Infrared Reflection Absorption Spectra of Cyanide Adsorbed on Pt(111) Electrode in Electrolyte Solutions. Bulletin of the Chemical Society of Japan, 1997, 70, 1787-1794.	2.0	14
69	High-Resolution Imaging of Aromatic Molecules Adsorbed on Rh(111) and Pt(111) in Hydrofluoric Acid Solution:Â In Situ STM Study. Journal of Physical Chemistry B, 1997, 101, 3547-3553.	1.2	66
70	In Situ Scanning Tunneling Microscopy of Benzene Adsorbed on Rh(111) and Pt(111) in HF Solution. Journal of the American Chemical Society, 1996, 118, 7795-7803.	6.6	149
71	Direct Observation of Complexation of Alkali Cations on Cyanide-Modified Pt(111) by Scanning Tunneling Microscopy. Journal of the American Chemical Society, 1996, 118, 393-400.	6.6	77
72	PREPARATION AND CHARACTERIZATION ON THIN FILMS OF DOPED IRON OXIDE SEMICONDUCTIVE ELECTRODES. Analytical Sciences, 1991, 7, 1693-1696.	0.8	1

#	Article	IF	Citations
73	Electrode Surfaces, Palladium: Molecular Adsorption. , 0, , 2202-2218.		0
74	Seriatim ECSTM-DEMS of Cu-catalyzed Reduction of CO In Alkaline Solution: Operando Correlation Of Electrode-surface Atomic Structure With Product Selectivity. Current Topics in Catalysis, 0, 13, 01.	0.0	1