

# Youn-Geun Kim

## List of Publications by Year in descending order

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74  
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236925

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docs citations

74  
times ranked

2517  
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering Cu surfaces for the electrocatalytic conversion of CO <sub>2</sub> : Controlling selectivity toward oxygenates and hydrocarbons. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5918-5923.	7.1	311
2	The Evolution of the Polycrystalline Copper Surface, First to Cu(111) and Then to Cu(100), at a Fixed CO <sub>2</sub> /RR Potential: A Study by <i>Operando</i> EC-STM. Langmuir, 2014, 30, 15053-15056.	3.5	245
3	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.	13.7	149
4	Platinum Nanofilm Formation by EC-ALE via Redox Replacement of UPD Copper: Å Studies Using in-Situ Scanning Tunneling Microscopy. Journal of Physical Chemistry B, 2006, 110, 17998-18006.	2.6	118
5	Surface reconstruction of pure-Cu single-crystal electrodes under CO-reduction potentials in alkaline solutions: A study by <i>seriatim</i> ECSTM-DEMS. Journal of Electroanalytical Chemistry, 2016, 780, 290-295.	3.8	92
6	In Situ Visualization of Lithium Ion Intercalation into MoS <sub>2</sub> Single Crystals using Differential Optical Microscopy with Atomic Layer Resolution. Journal of the American Chemical Society, 2016, 138, 3355-3361.	13.7	81
7	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.	13.7	77
8	High-Resolution Imaging of Aromatic Molecules Adsorbed on Rh(111) and Pt(111) in Hydrofluoric Acid Solution: Å In Situ STM Study. Journal of Physical Chemistry B, 1997, 101, 3547-3553.	2.6	66
9	Electrodeposition of Ru by atomic layer deposition (ALD). Electrochimica Acta, 2008, 53, 6157-6164.	5.2	62
10	Surface Reconstruction of Polycrystalline Cu Electrodes in Aqueous KHCO <sub>3</sub> Electrolyte at Potentials in the Early Stages of CO <sub>2</sub> Reduction. Electrocatalysis, 2018, 9, 526-530.	3.0	60
11	In Situ Scanning Tunneling Microscopy of Highly Ordered Adlayers of Aromatic Molecules on Well-Defined Pt(111) Electrodes in Solution: Å Benzoic Acid, Terephthalic Acid, and Pyrazine. Langmuir, 1999, 15, 7810-7815.	3.5	59
12	Regulating the Product Distribution of CO Reduction by the Atomic-Level Structural Modification of the Cu Electrode Surface. Electrocatalysis, 2016, 7, 391-399.	3.0	56
13	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.	9.4	49
14	Aqueous Electrodeposition of Ge Monolayers. Langmuir, 2010, 26, 2877-2884.	3.5	45
15	Underpotential Deposition of Copper on Iodine-Modified Pt(111): Å In Situ STM and ex Situ LEED Studies. Journal of Physical Chemistry B, 1998, 102, 3498-3505.	2.6	41
16	Electrochemical Atomic Layer Deposition (E-ALD) of Pt Nanofilms Using SLRR Cycles. Journal of the Electrochemical Society, 2012, 159, D616-D622.	2.9	39
17	Copper Nanofilm Formation by Electrochemical ALD. Journal of the Electrochemical Society, 2009, 156, D261.	2.9	33
18	Cu nanofilm formation by electrochemical atomic layer deposition (ALD) in the presence of chloride ions. Journal of Electroanalytical Chemistry, 2008, 621, 205-213.	3.8	30

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19	Copper Nanofilm Formation by Electrochemical Atomic Layer Deposition. <i>Journal of the Electrochemical Society</i> , 2007, 154, D260.	2.9	29
20	Electrochemical atomic layer deposition of copper nanofilms on ruthenium. <i>Journal of Crystal Growth</i> , 2010, 312, 1271-1276.	1.5	29
21	Electrodeposition of CuInSe <sub>2</sub> (CIS) via Electrochemical Atomic Layer Deposition (E-ALD). <i>Langmuir</i> , 2012, 28, 3024-3031.	3.5	29
22	A DEMS Study of the Reduction of CO <sub>2</sub> , CO, and HCHO Pre-Adsorbed on Cu Electrodes: Empirical Inferences on the CO <sub>2</sub> RR Mechanism. <i>Electrocatalysis</i> , 2015, 6, 127-131.	3.0	27
23	Synthesis, Characterization, and Reactivity of Ethynyl- and Propynyl-Terminated Si(111) Surfaces. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19847-19862.	3.1	26
24	Seriatim ECSTM-ECPMIRS of the adsorption of carbon monoxide on Cu(100) in alkaline solution at CO <sub>2</sub> -reduction potentials. <i>Electrochemistry Communications</i> , 2018, 91, 1-4.	4.7	26
25	Cathodic regeneration of a clean and ordered Cu(1 0 0)-(1 $\bar{1}$ —1) surface from an air-oxidized and disordered electrode: An operando STM study. <i>Journal of Electroanalytical Chemistry</i> , 2014, 734, 7-9.	3.8	25
26	UHV $\bar{a}$ EC and EC $\bar{a}$ STM studies of molecular chemisorption at well-defined surfaces: hydroquinone and benzoquinone on Pd(hkl). <i>Electrochemistry Communications</i> , 1999, 1, 135-138.	4.7	24
27	Electrochemical surface science twenty years later: Expeditions into the electrocatalysis of reactions at the core of artificial photosynthesis. <i>Surface Science</i> , 2015, 631, 285-294.	1.9	22
28	Pb Deposition on I-Coated Au(111). UHV-EC and EC-STM Studies. <i>Langmuir</i> , 2007, 23, 2539-2545.	3.5	21
29	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. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15728-15740.	3.1	20
30	Thin Films: Preparation, Characterization, Applications. , 2002, , .		18
31	Self-Assembly of Insoluble Porphyrins on Au(111) under Aqueous Electrochemical Control. <i>Langmuir</i> , 2011, 27, 14828-14833.	3.5	18
32	Synthesis and Characterization of Atomically Flat Methyl-Terminated Ge(111) Surfaces. <i>Journal of the American Chemical Society</i> , 2015, 137, 9006-9014.	13.7	18
33	Electrochemical Formation of Germanene: pH 4.5. <i>Journal of the Electrochemical Society</i> , 2017, 164, D469-D477.	2.9	17
34	PbSe $\bar{a}$ PbTe Superlattice Formation via E-ALD. <i>Journal of the Electrochemical Society</i> , 2011, 158, D99.	2.9	16
35	Molecular chemisorption at well-defined Pd(111) electrode surfaces: hydroquinone sulfonate studied by UHV-EC-STM. <i>Journal of Electroanalytical Chemistry</i> , 2001, 500, 374-378.	3.8	15
36	Adsorbate-induced disorder-to-order surface reconstruction: iodine on Pd(111) revisited by EC-STM. <i>Journal of Electroanalytical Chemistry</i> , 2001, 509, 170-174.	3.8	15

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37	Potential-Dependent Adsorption of CO and Its Low-Overpotential Reduction to CH <sub>3</sub> CH <sub>2</sub> OH on Cu(511) Surface Reconstructed from Cu(pc): Operando Studies by Seriatim STM-EQCN-DEMS. <i>Journal of the Electrochemical Society</i> , 2018, 165, J3350-J3354.	2.9	15
38	Cation Effects on Infrared Reflection Absorption Spectra of Cyanide Adsorbed on Pt(111) Electrode in Electrolyte Solutions. <i>Bulletin of the Chemical Society of Japan</i> , 1997, 70, 1787-1794.	3.2	14
39	Structure and composition of Cu(hkl) surfaces exposed to O <sub>2</sub> and emersed from alkaline solutions: Prelude to UHV-EC studies of CO <sub>2</sub> reduction at well-defined copper catalysts. <i>Journal of Electroanalytical Chemistry</i> , 2014, 716, 101-105.	3.8	14
40	Potential-induced phase transition of low-index Au single crystal surfaces in propylene carbonate solution. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 2286.	2.8	13
41	PtRu Nanofilm Formation by Electrochemical Atomic Layer Deposition (E-ALD). <i>Langmuir</i> , 2014, 30, 3254-3263.	3.5	13
42	Overlayer Au-on-W Near-Surface Alloy for the Selective Electrochemical Reduction of CO <sub>2</sub> to Methanol: Empirical (DEMS) Corroboration of a Computational (DFT) Prediction. <i>Electrocatalysis</i> , 2015, 6, 493-497.	3.0	13
43	Structure of ordered electrified interfaces: EC-STM of hydroquinone sulfonate at well-defined Pd(111) electrodes. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 3303-3306.	2.8	12
44	Electron-Transfer-Induced Molecular Reorientations: The Benzoquinone/Hydroquinone Reaction at Pd(111)-(111) Studied by EC-STM. <i>Journal of Colloid and Interface Science</i> , 2001, 236, 197-199.	9.4	12
45	Molecular Adsorption at Well-Defined Electrode Surfaces: Hydroquinone on Pd(111) Studied by EC-STM. <i>Langmuir</i> , 2006, 22, 10762-10765.	3.5	11
46	Direct Evidence of Homoepitaxial Growth in the Electrodeposition of Au Observed by Ultra-High Resolution Differential Optical Microscopy. <i>Journal of the Electrochemical Society</i> , 2013, 160, D361-D365.	2.9	11
47	Molecular adsorption at well-defined electrode surfaces: benzene on Pd(1 1 1) studied by EC-STM and HREELS. <i>Journal of Electroanalytical Chemistry</i> , 2003, 554-555, 167-174.	3.8	10
48	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. <i>Journal of Electroanalytical Chemistry</i> , 2014, 716, 63-70.	3.8	10
49	Selective and quantitative removal of Pd films from Pt substrates by adsorbed-iodine-catalyzed anodic stripping. <i>Electrochimica Acta</i> , 1998, 44, 1031-1036.	5.2	9
50	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. <i>Journal of Electroanalytical Chemistry</i> , 2020, 857, 113704.	3.8	9
51	Tracking the prelude of the electroreduction of carbon monoxide via its interaction with Cu(100): Studies by operando scanning tunneling microscopy and infrared spectroscopy. <i>Catalysis Today</i> , 2020, 358, 210-214.	4.4	9
52	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. <i>ACS Catalysis</i> , 2021, 11, 12068-12074.	11.2	9
53	Visualization of Single Atomic Steps on An Ultra-Flat Si(100) Surface by Advanced Differential Interference Contrast Microscopy. <i>Electrochemical and Solid-State Letters</i> , 2011, 14, H351.	2.2	8
54	Atomic-Resolution Electrochemical Scanning Tunneling Microscopy: Evidence of Pd Place Exchange in the I(Ads)-Catalyzed Dissolution of Pd(111). <i>Journal of Physical Chemistry B</i> , 1998, 102, 6188-6192.	2.6	7

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55	Optimization of PbSe Nanofilms formation by Electrochemical Atomic Layer Deposition (ALD). ECS Transactions, 2009, 19, 245-272.	0.5	7
56	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.	3.8	7
57	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.	0.5	6
58	Preparation and characterization of ultraflat Pt facets by atom-height-resolved differential optical microscopy. Surface Science, 2015, 631, 57-62.	1.9	6
59	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.	11.2	6
60	Ta Surface Chemistry in Aqueous Solutions and the Possible Formation of TaTe <sub>2</sub> and TaS <sub>3</sub> . Journal of the Electrochemical Society, 2013, 160, D3278-D3284.	2.9	5
61	The Formation Of Cu Nanofilm By Electrochemical ALD. ECS Transactions, 2006, 2, 329-335.	0.5	4
62	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.	3.0	4
63	Electrochemical Surface Science of CO <sub>2</sub> Reduction at Well-Defined Cu Electrodes: Surface Characterization by Emersion, Ex Situ, In Situ, and Operando Methods. , 2018, , 562-576.		4
64	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.	3.1	3
65	Heterogenization of a Water-Insoluble Molecular Complex for Catalysis of the Proton-Reduction Reaction in Highly Acidic Aqueous Solutions. Electrocatalysis, 2014, 5, 226-228.	3.0	2
66	PREPARATION AND CHARACTERIZATION ON THIN FILMS OF DOPED IRON OXIDE SEMICONDUCTIVE ELECTRODES. Analytical Sciences, 1991, 7, 1693-1696.	1.6	1
67	Copper Nano Film Formation Using Electrochemical ALD. ECS Transactions, 2007, 11, 103-112.	0.5	1
68	Electrocatalytic Reduction of CO <sub>2</sub> on Cu and Au/W Electrode Surfaces: Empirical (DEMS) Confirmation of Computational (DFT) Predictions. ECS Transactions, 2017, 75, 1-17.	0.5	1
69	Electrocatalytic Reactions of Chemisorbed Aromatic Compounds: Studies by ES, DEMS, STM and EC. Modern Aspects of Electrochemistry, 2010, , 275-313.	0.2	1
70	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
71	Preliminary Investigations of Ta Surface Chemistry in Aqueous Solutions of TeO <sub>2</sub> , and the Possible Formation of TaTe <sub>2</sub> . ECS Transactions, 2013, 53, 113-121.	0.5	0
72	Electrode Surfaces, Palladium: Molecular Adsorption. , 0, , 2202-2218.		0

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73	Tuning the CO-Reduction Product Distribution by Structural Modification of the Cu Electrode Surface. ECS Transactions, 2017, 75, 87-97.	0.5	0
74	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.	3.8	0