

# Juhyoun Kwak

## List of Publications by Year in descending order

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95  
papers

7,183  
citations

117625

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95  
docs citations

95  
times ranked

7876  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Do-It-Yourself Pyramidal Mold for Nanotechnology. ACS Omega, 2019, 4, 14599-14604.  | 3.5  | 2         |
| 2  | Can Static Electricity on a Conductor Drive a Redox Reaction: Contact Electrification of Au by Polydimethylsiloxane, Charge Inversion in Water, and Redox Reaction. Journal of the American Chemical Society, 2018, 140, 14687-14695.   | 13.7 | 15        |
| 3  | A wet-chemistry-based hydrogel sensing platform for 2D imaging of pressure, chemicals and temperature. Nanoscale, 2018, 10, 13581-13588.  | 5.6  | 10        |
| 4  | Programmable Electrochemical Rectifier Based on a Thin-Layer Cell. ACS Applied Materials & Interfaces, 2017, 9, 20955-20962.  | 8.0  | 6         |
| 5  | Bench-top fabrication and electrochemical applications of a micro-gap electrode using a microbead spacer. Electrochemistry Communications, 2016, 68, 76-80.   | 4.7  | 12        |
| 6  | H <sup>+</sup> -Assisted fluorescent differentiation of Cu <sup>+</sup> and Cu <sup>2+</sup> : effect of Al <sup>3+</sup> -induced acidity on chemical sensing and generation of two novel and independent logic gating pathways. Chemical Communications, 2015, 51, 6357-6360. | 4.1  | 11        |
| 7  | A hydrogel pen for electrochemical reaction and its applications for 3D printing. Nanoscale, 2015, 7, 994-1001.   | 5.6  | 31        |
| 8  | Synthesis of triarylamine-containing poly(arylene ether)s by nucleophilic aromatic substitution reaction. Journal of Polymer Science Part A, 2014, 52, 2692-2702.   | 2.3  | 1         |
| 9  | A Label-Free Electrochemical Aptasensor for Thrombin Using a Single-Wall Carbon Nanotube (SWCNT) Casted Glassy Carbon Electrode (GCE). Electroanalysis, 2014, 26, 513-520.  | 2.9  | 10        |
| 10 | Subcellular Neural Probes from Single-Crystal Gold Nanowires. ACS Nano, 2014, 8, 8182-8189.   | 14.6 | 61        |
| 11 | Soft colloidal lithography by strong physical contact using swollen magnetic microspheres and magnetic force. Electrochemistry Communications, 2013, 30, 99-102.  | 4.7  | 1         |
| 12 | Electrochemical detection of dopamine using a bare indium-tin oxide electrode and scan rate control. Journal of Electroanalytical Chemistry, 2013, 708, 7-12.   | 3.8  | 17        |
| 13 | Synthetic, <sup>119</sup> Sn NMR Spectroscopic, Electrochemical, and Reactivity Study of Organotin A <sub>3</sub> Corrolates Including Chiral and Ferrocenyl Derivatives. Inorganic Chemistry, 2013, 52, 1991-1999.   | 4.0  | 16        |
| 14 | Synthesis of Gold Coated Magnetic Microparticles and Their Application for Electrochemical Glucose Sensing by the Enzymatically Precipitated Prussian Blue. Journal of Biomedical Nanotechnology, 2013, 9, 901-906.   | 1.1  | 1         |
| 15 | Enhanced Adhesion of Preosteoblasts inside 3D PCL Scaffolds by Polydopamine Coating and Mineralization. Macromolecular Bioscience, 2013, 13, 1389-1395.   | 4.1  | 69        |
| 16 | Dopamine Detection Using the Selective and Spontaneous Formation of Electrocatalytic Poly(dopamine) Films on Indium-Tin Oxide Electrodes. Electroanalysis, 2012, 24, 993-996.   | 2.9  | 16        |
| 17 | Ordered Polymeric Microhole Array Made by Selective Wetting and Applications for Electrochemical Microelectrode Array. Langmuir, 2011, 27, 8548-8553.   | 3.5  | 12        |
| 18 | Aptamer Based Electrochemical Sensor System for Protein Using the Generation/Collection Mode of Scanning Electrochemical Microscope (SECM). Journal of Nanoscience and Nanotechnology, 2011, 11, 4305-4311.   | 0.9  | 6         |

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|----|---|------|-----------|
| 19 | Electrochemical Detection of Biomolecule with Mixed Self-Assembled Monolayers of Ferrocene-Undecanethiol. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 4194-4199.   | 0.9  | 3         |
| 20 | Electrochemical deposition of Pd nanoparticles on indium-tin oxide electrodes and their catalytic properties for formic acid oxidation. <i>Electrochemistry Communications</i> , 2010, 12, 1442-1445.   | 4.7  | 34        |
| 21 | Nanosieving of Anions and Cavity-Size-Dependent Association of Cyclodextrins on a 1-Adamantanethiol Self-Assembled Monolayer. <i>ACS Nano</i> , 2010, 4, 3949-3958.   | 14.6 | 17        |
| 22 | Synthetic, Cyclic Voltammetric, Structural, EPR, and UV-Vis Spectroscopic Studies of Thienyl-Containing meso-A2B-cor(CrV <sup>•</sup> O) Systems: Consideration of Three Interrelated Molecular Detection Modalities. <i>Inorganic Chemistry</i> , 2010, 49, 502-512. | 4.0  | 20        |
| 23 | Label-Free Electrochemical DNA Detection Based on Electrostatic Interaction between DNA and Ferrocene Dendrimers. <i>Bulletin of the Korean Chemical Society</i> , 2010, 31, 3099-3102.   | 1.9  | 4         |
| 24 | Application of Polyaniline to an Enzyme-Amplified Electrochemical Immunosensor as an Electroactive Report Molecule. <i>Bulletin of the Korean Chemical Society</i> , 2010, 31, 3103-3108.   | 1.9  | 5         |
| 25 | A study of nerve agent model organophosphonate binding with manganese-A2B-corrole and -A2B2-porphyrin systems. <i>Polyhedron</i> , 2009, 28, 2418-2430.   | 2.2  | 20        |
| 26 | Aptamer-based electrochemical detection of protein using enzymatic silver deposition. <i>Electrochimica Acta</i> , 2009, 54, 6788-6791.   | 5.2  | 22        |
| 27 | One-Dimensional Gold Nanostructures through Directed Anisotropic Overgrowth from Gold Decahedrons. <i>Journal of Physical Chemistry C</i> , 2009, 113, 3449-3454.   | 3.1  | 53        |
| 28 | Faradaic impedance titration and control of electron transfer of 1-(12-mercaptododecyl)imidazole monolayer on a gold electrode. <i>Electrochimica Acta</i> , 2008, 53, 2630-2636.   | 5.2  | 19        |
| 29 | An electrochemical impedance biosensor with aptamer-modified pyrolyzed carbon electrode for label-free protein detection. <i>Sensors and Actuators B: Chemical</i> , 2008, 129, 372-379.  | 7.8  | 133       |
| 30 | Electrochemical DNA Hybridization Detection Using DNA Cleavage. <i>Electroanalysis</i> , 2008, 20, 1204-1208.   | 2.9  | 9         |
| 31 | Electrochemical impedance sensing of DNA at PNA self assembled monolayer. <i>Journal of Electroanalytical Chemistry</i> , 2008, 612, 37-41.   | 3.8  | 82        |
| 32 | Characterization and electrocatalytic properties of Prussian blue electrochemically deposited on nano-Au/PAMAM dendrimer-modified gold electrode. <i>Biosensors and Bioelectronics</i> , 2008, 23, 1519-1526.   | 10.1 | 57        |
| 33 | Label-free aptasensor for platelet-derived growth factor (PDGF) protein. <i>Analytica Chimica Acta</i> , 2008, 613, 163-168.  | 5.4  | 53        |
| 34 | An electrochemical immunosensor using p-aminophenol redox cycling by NADH on a self-assembled monolayer and ferrocene-modified Au electrodes. <i>Analyst</i> , 2008, 133, 1599.   | 3.5  | 48        |
| 35 | Pyrolyzed carbon biosensor for aptamer-protein interactions using electrochemical impedance spectroscopy. , 2007, , .   |      | 0         |
| 36 | A Penicillamine Biosensor Based on Tyrosinase Immobilized on Nano-Au/ PAMAM Dendrimer Modified Gold Electrode. <i>Electroanalysis</i> , 2007, 19, 2428-2436.  | 2.9  | 23        |

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|----|--|------|-----------|
| 37 | Monodisperse PtRu Nanoalloy on Carbon as a High-Performance DMFC Catalyst. <i>Chemistry of Materials</i> , 2006, 18, 4209-4211.  | 6.7  | 74        |
| 38 | Protein micropatterning based on electrochemically switched immobilization of bioligand on electropolymerized film of a dually electroactive monomer. <i>Chemical Communications</i> , 2006, , 4723. | 4.1  | 9         |
| 39 | Sieving behaviour of nanoscopic pores by hydrated ions. <i>Chemical Communications</i> , 2006, , 2167.   | 4.1  | 1         |
| 40 | pH-Dependent rectification in self-assembled monolayers based on electrostatic interactions. <i>Chemical Communications</i> , 2006, , 183-185.   | 4.1  | 20        |
| 41 | An electrochemical immunosensor using ferrocenyl-tethered dendrimer. <i>Analyst</i> , The, 2006, 131, 402-406.   | 3.5  | 47        |
| 42 | Synthetic, crystallographic and electrochemical studies of thienyl-substituted corrole complexes of copper and cobalt. <i>Polyhedron</i> , 2006, 25, 1519-1530.                                      | 2.2  | 27        |
| 43 | Electrochemical determination of total alkaline phosphatase in human blood with a micropatterned ITO film. <i>Journal of Electroanalytical Chemistry</i> , 2005, 577, 243-248.                       | 3.8  | 41        |
| 44 | Nitrate reduction catalyzed by nanocomposite layer of Ag and Pb on Au(111). <i>Journal of Electroanalytical Chemistry</i> , 2005, 579, 143-152.  | 3.8  | 27        |
| 45 | Anion Exchange-Promoted Ru <sup>3+/2+</sup> -Redox Switch in Self-Assembled Monolayers of Imidazolium Ions on a Gold Electrode. <i>Langmuir</i> , 2005, 21, 4268-4271.                               | 3.5  | 58        |
| 46 | Silicon Micromachined Infrared Thin-Layer Cell for In Situ Spectroelectrochemical Analysis of Aqueous and Nonaqueous Solvent System. <i>Electroanalysis</i> , 2005, 17, 959-964.                     | 2.9  | 6         |
| 47 | Electrochemical Detection of DNA Hybridization Using Biometallization. <i>Analytical Chemistry</i> , 2005, 77, 579-584.  | 6.5  | 133       |
| 48 | A direct analysis of nanomolar metal ions in environmental water samples with Nafion-coated microelectrodes. <i>Electrochimica Acta</i> , 2004, 50, 205-210.   | 5.2  | 13        |
| 49 | A miniaturized low-power wireless remote environmental monitoring system based on electrochemical analysis. <i>Sensors and Actuators B: Chemical</i> , 2004, 102, 27-34.                             | 7.8  | 48        |
| 50 | Time-Resolved In Situ Spectroelectrochemical Study on Reduction of Sulfur in N,N[ <sup>sup</sup> Ê¹]-Dimethylformamide. <i>Journal of the Electrochemical Society</i> , 2004, 151, E283.             | 2.9  | 112       |
| 51 | Electrochemically Induced and Controlled One-Step Covalent Coupling Reaction on Self-Assembled Monolayers. <i>Langmuir</i> , 2004, 20, 3821-3823.  | 3.5  | 26        |
| 52 | Protein Patterning Based on Electrochemical Activation of Bioinactive Surfaces with Hydroquinone-Caged Biotin. <i>Journal of the American Chemical Society</i> , 2004, 126, 15368-15369.             | 13.7 | 53        |
| 53 | Bimetallic Clusters by Underpotential Deposition on Layered Au Nanoparticle Films. <i>Journal of Physical Chemistry B</i> , 2004, 108, 5372-5379.  | 2.6  | 18        |
| 54 | Electrochemistry on Alternate Structures of Gold Nanoparticles and Ferrocene-Tethered Polyamidoamine Dendrimers. <i>Bulletin of the Korean Chemical Society</i> , 2004, 25, 1681-1686.               | 1.9  | 10        |

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|----|---|------|-----------|
| 55 | Electrocatalytic dioxygen reduction on underpotentially deposited Pb on Au(111) studied by an active site blocking strategy. <i>Journal of Catalysis</i> , 2003, 213, 17-22.  | 6.2  | 24        |
| 56 | Enzyme-Amplified Electrochemical Detection of DNA Using Electrocatalysis of Ferrocenyl-Tethered Dendrimer. <i>Analytical Chemistry</i> , 2003, 75, 5665-5672.   | 6.5  | 133       |
| 57 | Electrochemical Deprotection for Site-Selective Immobilization of Biomolecules. <i>Langmuir</i> , 2002, 18, 1460-1462.  | 3.5  | 18        |
| 58 | Scanning Tunneling Microscopy Investigation of Silver Deposition upon Au(111) in the Presence of Chloride. <i>Langmuir</i> , 2002, 18, 8025-8032.   | 3.5  | 23        |
| 59 | The first observation of four-electron reduction in [60]fullerene-metal cluster self-assembled monolayers (SAMs) Electronic supplementary information (ESI) available: CV spectra, half-wave potentials and XPS data. See <a href="http://www.rsc.org/suppdata/cc/b2/b209024d/">http://www.rsc.org/suppdata/cc/b2/b209024d/</a> . <i>Chemical Communications</i> , 2002, 2966-2967. | 4.1  | 15        |
| 60 | Effects of dopant anions and N-substituents on the electrochemical behavior of polypyrrole films in propylene carbonate solution. <i>Electrochemistry Communications</i> , 2002, 4, 128-133.  | 4.7  | 16        |
| 61 | Electrodeposition of Epitaxial Cu(111) Thin Films on Au(111) Using Defect-Mediated Growth. <i>Journal of the American Chemical Society</i> , 2001, 123, 7176-7177.  | 13.7 | 40        |
| 62 | Electrocatalytic Dioxygen Reduction on Underpotentially Deposited Tl on Au(111) Studied by an Active Site Blocking Strategy. <i>Langmuir</i> , 2001, 17, 3704-3711.   | 3.5  | 15        |
| 63 | Synthesis and Characterization of $\text{[Pt}_3\text{Pt}_2\text{C}_6\text{O}]$ Trirhenium Hydrido Cluster Complexes. <i>Organometallics</i> , 2001, 20, 3139-3144.  | 2.3  | 32        |
| 64 | High-level production of heme-containing holoproteins in <i>Escherichia coli</i> . <i>Applied Microbiology and Biotechnology</i> , 2001, 55, 187-191.   | 3.6  | 22        |
| 65 | Ion and water transports in Prussian blue films investigated with electrochemical quartz crystal microbalance. <i>Electrochemistry Communications</i> , 2001, 3, 274-280.   | 4.7  | 35        |
| 66 | Atomic structure of highly ordered pyrolytic graphite doped with boron. <i>Electrochemistry Communications</i> , 2001, 3, 608-612.  | 4.7  | 28        |
| 67 | Faradaic impedance titration of pure 3-mercaptopropionic acid and ethanethiol mixed monolayers on gold. <i>Journal of Electroanalytical Chemistry</i> , 2001, 512, 83-91.   | 3.8  | 70        |
| 68 | Novel Families of Three-Component Reversible Redox Cycles Involving Cage Deformation via Intramolecular Redox Reaction: A Tetrathiolate-Bridged Dinuclear Molybda- and Tungstacarbonates. <i>Journal of the American Chemical Society</i> , 2001, 123, 9054-9063.   | 13.7 | 14        |
| 69 | Ordered nanoporous arrays of carbon supporting high dispersions of platinum nanoparticles. <i>Nature</i> , 2001, 412, 169-172.  | 27.8 | 2,439     |
| 70 | C60 Self-Assembled Monolayer Using Diamine as a Prelayer. <i>Chemistry Letters</i> , 2000, 29, 958-959.   | 1.3  | 8         |
| 71 | Analysis of Heavy-Metal Ions Using Mercury Microelectrodes and a Solid-State Reference Electrode on a Si Wafer. <i>Japanese Journal of Applied Physics</i> , 2000, 39, 7159-7163.   | 1.5  | 23        |
| 72 | Anion Transport in Prussian Blue Films in Acetonitrile and Propylene Carbonate Solutions. <i>Journal of the Electrochemical Society</i> , 2000, 147, 3801.  | 2.9  | 9         |

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|----|--|------|-----------|
| 73 | Slow and Fast Charge Transport Processes in PPy/NO[sub 3] Films. Journal of the Electrochemical Society, 2000, 147, 4239.  | 2.9  | 16        |
| 74 | Mass transport behavior of polypyrrole and poly(N-methylpyrrole) films in acetonitrile solutions. Journal of Electroanalytical Chemistry, 1999, 468, 104-109.  | 3.8  | 21        |
| 75 | Microstructure and electrochemical properties of some synthetic carbons. Synthetic Metals, 1999, 100, 195-204.   | 3.9  | 5         |
| 76 | Dependence of the Electrochemical Behavior of Poly(N-Phenylpyrrole) Films on the Type of Anion and Solvent Used in the Electropolymerization. Journal of Physical Chemistry B, 1999, 103, 6030-6035.   | 2.6  | 11        |
| 77 | Mass Transport Investigated with the Electrochemical and Electrogravimetric Impedance Techniques. 3. Complex Charge Transport in PPy/PSS Films. Journal of Physical Chemistry B, 1998, 102, 1982-1988.   | 2.6  | 36        |
| 78 | Lithium Insertion into Disordered Carbons Prepared from Organic Polymers. Journal of the Electrochemical Society, 1998, 145, 3123-3129.  | 2.9  | 14        |
| 79 | Electrochemical Insertion of Lithium into Polyacrylonitrile-Based Disordered Carbons. Journal of the Electrochemical Society, 1997, 144, 4279-4284.  | 2.9  | 39        |
| 80 | Mass Transport Investigated with the Electrochemical and Electrogravimetric Impedance Techniques. 1. Water Transport in PPy/CuPTS Films. Journal of Physical Chemistry B, 1997, 101, 774-781.  | 2.6  | 49        |
| 81 | Mass Transport Investigated with the Electrochemical and Electrogravimetric Impedance Techniques. 2. Anion and Water Transport in PMPy and PPy Films. Journal of Physical Chemistry B, 1997, 101, 4656-4661.   | 2.6  | 50        |
| 82 | Electrochemical Studies of C60-Triosmium Complexes: First Evidence for a C60-Mediated Electron Transfer to the Metal Center. Inorganic Chemistry, 1997, 36, 2698-2699.   | 4.0  | 23        |
| 83 | Single Molecule Electrochemistry. Journal of the American Chemical Society, 1996, 118, 9669-9675.  | 13.7 | 188       |
| 84 | Mass transport study of Nafion® coatings saturated with [Os(bpy)3]2+ by an electrochemical quartz crystal microbalance. Journal of Electroanalytical Chemistry, 1995, 394, 87-92.  | 3.8  | 20        |
| 85 | Monitoring the ejection and incorporation of ferricyanide [Fe(CN)63-] and ferrocyanide [Fe(CN)64-] counterions at protonated poly(4-vinylpyridine) coatings on electrodes with the scanning electrochemical microscope. Analytical Chemistry, 1992, 64, 250-256. | 6.5  | 42        |
| 86 | Application of scanning electrochemical microscopy to generation/collection experiments with high collection efficiency. Analytical Chemistry, 1991, 63, 1501-1504.  | 6.5  | 60        |
| 87 | Application of scanning electrochemical microscopy to biological samples.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 1740-1743.   | 7.1  | 105       |
| 88 | Polymer films on electrodes. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1990, 282, 239-252.  | 0.1  | 11        |
| 89 | Scanning Electrochemical Microscopy: V . A Study of the Conductivity of a Polypyrrole Film. Journal of the Electrochemical Society, 1990, 137, 1481-1484.  | 2.9  | 41        |
| 90 | Polymer Films on Electrodes: XXIV . Ellipsometric Study of the Electrochemical Redox Processes of a Polypyrrole Film on a Platinum Electrode. Journal of the Electrochemical Society, 1989, 136, 3720-3724.  | 2.9  | 36        |

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|----|--|-----|-----------|
| 91 | Scanning electrochemical microscopy. Introduction and principles. <i>Analytical Chemistry</i> , 1989, 61, 132-138.   | 6.5 | 1,039     |
| 92 | Scanning electrochemical microscopy. Apparatus and two-dimensional scans of conductive and insulating substrates. <i>Analytical Chemistry</i> , 1989, 61, 1794-1799.   | 6.5 | 196       |
| 93 | Scanning electrochemical microscopy. Theory of the feedback mode. <i>Analytical Chemistry</i> , 1989, 61, 1221-1227.   | 6.5 | 566       |
| 94 | Electrochemistry in liquid sulfur dioxide. 8. Oxidation of iron, ruthenium, and osmium bipyridine complexes at ultramicroelectrodes at very positive potentials. <i>Inorganic Chemistry</i> , 1988, 27, 4377-4382. | 4.0 | 29        |
| 95 | Digital Simulation of Linear Sweep Voltammetry of Quasi-Reversible Systems at Ultramicroelectrodes. <i>Journal of the Electrochemical Society</i> , 1987, 134, 57C-59C.  | 2.9 | 0         |