

Heung Cho Ko

List of Publications by Year in descending order

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64
papers

4,599
citations

172457

29
h-index

110387

64
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70
all docs

70
docs citations

70
times ranked

7052
citing authors

#	ARTICLE	IF	CITATIONS
1	A hemispherical electronic eye camera based on compressible silicon optoelectronics. <i>Nature</i> , 2008, 454, 748-753.	27.8	1,211
2	Charge-transfer-based Gas Sensing Using Atomic-layer MoS ₂ . <i>Scientific Reports</i> , 2015, 5, 8052.	3.3	489
3	Chemical Sensing of 2D Graphene/MoS ₂ Heterostructure device. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 16775-16780.	8.0	375
4	Curvilinear Electronics Formed Using Silicon Membrane Circuits and Elastomeric Transfer Elements. <i>Small</i> , 2009, 5, 2703-2709.	10.0	233
5	Graphene-based gas sensor: metal decoration effect and application to a flexible device. <i>Journal of Materials Chemistry C</i> , 2014, 2, 5280-5285.	5.5	198
6	Highly Flexible and Transparent Multilayer MoS ₂ Transistors with Graphene Electrodes. <i>Small</i> , 2013, 9, 3295-3300.	10.0	189
7	Bifunctional Sensing Characteristics of Chemical Vapor Deposition Synthesized Atomic-Layered MoS ₂ . <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 2952-2959.	8.0	162
8	Transfer of GaN LEDs From Sapphire to Flexible Substrates by Laser Lift-Off and Contact Printing. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 2115-2118.	2.5	121
9	Bulk Quantities of Single-Crystal Silicon Micro-/Nanoribbons Generated from Bulk Wafers. <i>Nano Letters</i> , 2006, 6, 2318-2324.	9.1	96
10	Micromechanics and Advanced Designs for Curved Photodetector Arrays in Hemispherical Electronic Eye Cameras. <i>Small</i> , 2010, 6, 851-856.	10.0	94
11	Mechanics of curvilinear electronics. <i>Soft Matter</i> , 2010, 6, 5757.	2.7	74
12	Robust and stretchable indium gallium zinc oxide-based electronic textiles formed by cilia-assisted transfer printing. <i>Nature Communications</i> , 2016, 7, 11477.	12.8	73
13	Organic nonvolatile memory devices with charge trapping multilayer graphene film. <i>Nanotechnology</i> , 2012, 23, 105202.	2.6	72
14	Enhancing the Charge Transfer of the Counter Electrode in Dye-Sensitized Solar Cells Using Periodically Aligned Platinum Nanocups. <i>Small</i> , 2012, 8, 3757-3761.	10.0	72
15	Arrays of Silicon Micro/Nanostructures Formed in Suspended Configurations for Deterministic Assembly Using Flat and Roller-Type Stamps. <i>Small</i> , 2011, 7, 484-491.	10.0	64
16	High-Responsivity Near-Infrared Photodetector Using Gate-Modulated Graphene/Germanium Schottky Junction. <i>Advanced Electronic Materials</i> , 2019, 5, 1800957.	5.1	54
17	Secondary Sensitivity Control of Silver-Nanowire-Based Resistive-Type Strain Sensors by Geometric Modulation of the Elastomer Substrate. <i>Small</i> , 2017, 13, 1700070.	10.0	53
18	Proton-Irradiation Effects on the Thermoelectric Properties of Flexible Bi ₂ Te ₃ /PEDOT:PSS Composite Films. <i>Advanced Electronic Materials</i> , 2019, 5, 1800786.	5.1	53

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19	Mechanically enhanced graphene oxide/carboxymethyl cellulose nanofibril composite fiber as a scalable adsorbent for heavy metal removal. <i>Carbohydrate Polymers</i> , 2020, 240, 116348.	10.2	50
20	Electrochemistry and electrochromism of the polythiophene derivative with viologen pendant. <i>Synthetic Metals</i> , 2002, 132, 15-20.	3.9	42
21	Metal Decoration Effects on the Gas-Sensing Properties of 2D Hybrid-Structures on Flexible Substrates. <i>Sensors</i> , 2015, 15, 24903-24913.	3.8	41
22	All-Solution-Processed Transparent Thin Film Transistor and Its Application to Liquid Crystals Driving. <i>Advanced Materials</i> , 2013, 25, 3209-3214.	21.0	39
23	Isoindigo-Based Donor-Acceptor Conjugated Polymers for Air-Stable Nonvolatile Memory Devices. <i>ACS Macro Letters</i> , 2015, 4, 322-326.	4.8	39
24	Deep-ultraviolet sensing characteristics of transparent and flexible IGZO thin film transistors. <i>Journal of Alloys and Compounds</i> , 2020, 817, 152788.	5.5	37
25	Omnidirectional Stretchable Inorganic-Material-Based Electronics with Enhanced Performance. <i>Advanced Electronic Materials</i> , 2020, 6, 2000058.	5.1	34
26	Systematic prediction of maximum electrochromic contrast of an electrochromic material. <i>Synthetic Metals</i> , 2005, 155, 595-598.	3.9	33
27	Synergistic Effect of Sulfur and Chalcogen Atoms on the Enhanced Refractive Indices of Polyimides in the Visible and Near-Infrared Regions. <i>Macromolecules</i> , 2019, 52, 827-834.	4.8	33
28	Observation of photoluminescence in polypyrrole micelles. <i>Synthetic Metals</i> , 2005, 150, 127-131.	3.9	32
29	Synthesis and characterization of phosphorus- and sulfur-containing aromatic polyimides for high refractive index. <i>Polymer</i> , 2018, 136, 143-148.	3.8	31
30	Light-emitting electrochemical cells based on polyimide containing perylene and tri(ethylene oxide) moieties. <i>Synthetic Metals</i> , 2004, 144, 177-181.	3.9	28
31	Twistable nonvolatile organic resistive memory devices. <i>Organic Electronics</i> , 2013, 14, 2087-2092.	2.6	27
32	Electrochemistry and electrochromism of a poly(cyclopentadithiophene) derivative with a viologen pendant. <i>Electrochimica Acta</i> , 2003, 48, 4127-4135.	5.2	24
33	Single- and dual-type electrochromic devices based on polycarbazole derivative bearing pendant viologen. <i>Synthetic Metals</i> , 2006, 156, 695-698.	3.9	21
34	Ultrathin Sticker-Type ZnO Thin Film Transistors Formed by Transfer Printing via Topological Confinement of Water-Soluble Sacrificial Polymer in Dimple Structure. <i>Advanced Functional Materials</i> , 2013, 23, 1375-1382.	14.9	21
35	Mechanics of hemispherical electronics. <i>Applied Physics Letters</i> , 2009, 95, 181912.	3.3	19
36	Double-sided printed circuit textiles based on stencil-type layer-by-layer coating with PEDOT:PSS:Ag nanowires and chitosan for electrothermochromic displays. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14525-14534.	5.5	19

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37	Characteristics of dual-type electrochromic device based on poly(3-tetradecylthiophene) and poly(3,4-ethylenedioxythiophene). <i>Synthetic Metals</i> , 2004, 143, 31-35.	3.9	18
38	Probing the photothermally induced phase transitions in single-crystalline vanadium dioxide nanobeams. <i>Nanotechnology</i> , 2013, 24, 345701.	2.6	18
39	Sticker-Type Alq ₃ -Based OLEDs Based on Printable Ultrathin Substrates in Periodically Anchored and Suspended Configurations. <i>Advanced Materials</i> , 2013, 25, 5626-5631.	21.0	17
40	Highly Efficient Full-Color Inorganic LEDs on a Single Wafer by Using Multiple Adhesive Bonding. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100300.	3.7	16
41	Side chains contributions to characteristics of resistive memory based on water-soluble polyfluorenes: Effects of structure and length of side pendant group. <i>Organic Electronics</i> , 2014, 15, 1290-1298.	2.6	14
42	Light emitting polyfluorene derivatives with three different structural configurations. <i>Synthetic Metals</i> , 2004, 144, 193-199.	3.9	13
43	A tunable sub-100 nm silicon nanopore array with an AAO membrane mask: reducing unwanted surface etching by introducing a PMMA interlayer. <i>Nanoscale</i> , 2015, 7, 13489-13494.	5.6	13
44	High-Performance Implantable Bioelectrodes with Immunocompatible Topography for Modulation of Macrophage Responses. <i>ACS Nano</i> , 2022, 16, 7471-7485.	14.6	13
45	Demonstration of Addressable Organic Resistive Memory Utilizing a PC-Interface Memory Cell Tester. <i>IEEE Electron Device Letters</i> , 2013, 34, 51-53.	3.9	10
46	Enhancement of Interfacial Adhesion Using Micro/Nanoscale Hierarchical Cilia for Randomly Accessible Membrane-Type Electronic Devices. <i>ACS Nano</i> , 2020, 14, 118-128.	14.6	10
47	Stick-and-play system based on interfacial adhesion control enhanced by micro/nanostructures. <i>Nano Research</i> , 2021, 14, 3143-3158.	10.4	10
48	A Bezel-Less Tetrahedral Image Sensor Formed by Solvent-Assisted Plasticization and Transformation of an Acrylonitrile Butadiene Styrene Framework. <i>Advanced Materials</i> , 2018, 30, e1801256.	21.0	9
49	Electrochemical Deposition of a Pyrrole-1-yl Substituted Perylene Diimide for Photoluminescence and Electrochromism. <i>Journal of the Electrochemical Society</i> , 2004, 151, E80.	2.9	8
50	Hexahedral LED Arrays with Row and Column Control Lines Formed by Selective Liquid-Phase Plasticization and Nondisruptive Tucking-Based Origami. <i>Advanced Materials Technologies</i> , 2020, 5, 2000010.	5.8	8
51	Assignments of cyclic voltammetric peaks during electrochemical polymerization of pyrrole with viologen pendant. <i>Synthetic Metals</i> , 2003, 139, 439-443.	3.9	7
52	Controlled hydrothermal growth of multi-length-scale ZnO nanowires using liquid masking layers. <i>Journal of Materials Science</i> , 2014, 49, 8000-8009.	3.7	7
53	Formation of a Perylenetetra-carboxylic Diimide Network Film by Post Electrochemical Treatment. <i>Langmuir</i> , 2006, 22, 9431-9435.	3.5	6
54	Enhanced Ultraviolet Photoresponse Characteristics of Indium Gallium Zinc Oxide Photo-Thin-Film Transistors Enabled by Surface Functionalization of Biomaterials for Real-Time Ultraviolet Monitoring. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47784-47792.	8.0	6

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55	Reliable peripheral anchor-assisted transfer printing of ultrathin SiO ₂ for a transparent and flexible IGZO-based inverter. <i>Microelectronic Engineering</i> , 2018, 197, 15-22.	2.4	5
56	Automatic Transformation of Membrane-Type Electronic Devices into Complex 3D Structures via Extrusion Shear Printing and Thermal Relaxation of Acrylonitrile-Butadiene-Styrene Frameworks. <i>Advanced Functional Materials</i> , 2020, 30, 1907384.	14.9	5
57	Printable ultrathin substrates formed on a concave-convex underlayer for highly flexible membrane-type electrode stickers. <i>Soft Matter</i> , 2012, 8, 7598.	2.7	4
58	Light-emitting diodes based on alternating copolymers containing fluorene and oligo(p-phenylenevinylene). <i>Synthetic Metals</i> , 2005, 151, 218-224.	3.9	3
59	Robust and Highly Conductive PEDOT:PSS:Ag Nanowires/Polyethyleneimine Multilayers Based on Ionic Layer-by-Layer Assembly for E-Textiles and 3D Electronics. <i>ACS Applied Electronic Materials</i> , 2022, 4, 2413-2423.	4.3	3
60	3D Image Sensors: A Bezel-Less Tetrahedral Image Sensor Formed by Solvent-Assisted Plasticization and Transformation of an Acrylonitrile Butadiene Styrene Framework (Adv. Mater. 30/2018). <i>Advanced Materials</i> , 2018, 30, 1870224.	21.0	1
61	Extrusion Shear Printing: Automatic Transformation of Membrane-Type Electronic Devices into Complex 3D Structures via Extrusion Shear Printing and Thermal Relaxation of Acrylonitrile-Butadiene-Styrene Frameworks (Adv. Funct. Mater. 5/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070033.	14.9	1
62	Highly Refractive Aromatic Polybenzoxazoles Derived from Sulfur-Containing Dibenzoyl Chlorides. <i>ACS Applied Polymer Materials</i> , 2021, 3, 4932-4939.	4.4	1
63	Corrections to "Demonstration of Addressable Organic Resistive Memory Utilizing a PC-Interface Memory Cell Tester" [Jan 13 51-53]. <i>IEEE Electron Device Letters</i> , 2013, 34, 468-468.	3.9	0
64	Sensors: Secondary Sensitivity Control of Silver-Nanowire-Based Resistive-Type Strain Sensors by Geometric Modulation of the Elastomer Substrate (Small 23/2017). <i>Small</i> , 2017, 13, .	10.0	0