

Fu-Hsiang Ko

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/700454/publications.pdf>

Version: 2024-02-01

101
papers

2,345
citations

201674

27
h-index

243625

44
g-index

102
all docs

102
docs citations

102
times ranked

3481
citing authors

#	ARTICLE	IF	CITATIONS
1	Studying the size/shape separation and optical properties of silver nanoparticles by capillary electrophoresis. <i>Journal of Chromatography A</i> , 2005, 1062, 139-145.	3.7	151
2	Poly-silicon nanowire field-effect transistor for ultrasensitive and label-free detection of pathogenic avian influenza DNA. <i>Biosensors and Bioelectronics</i> , 2009, 24, 3019-3024.	10.1	120
3	Novel poly-silicon nanowire field effect transistor for biosensing application. <i>Biosensors and Bioelectronics</i> , 2009, 24, 1223-1229.	10.1	107
4	Real-Time and Label-Free Detection of the Prostate-Specific Antigen in Human Serum by a Polycrystalline Silicon Nanowire Field-Effect Transistor Biosensor. <i>Analytical Chemistry</i> , 2013, 85, 7912-7918.	6.5	101
5	A simple pyrene based AIEE active schiff base probe for selective naked eye and fluorescence detection of trivalent cations with live cell application. <i>Sensors and Actuators B: Chemical</i> , 2016, 231, 18-29.	7.8	89
6	Label-free biosensing of a gene mutation using a silicon nanowire field-effect transistor. <i>Biosensors and Bioelectronics</i> , 2009, 25, 820-825.	10.1	72
7	Novel pyrene containing monomeric and dimeric supramolecular AIEE active nano-probes utilized in selective colorimetric detection of trivalent metal and highly acidic pH sensing with live cell applications. <i>Journal of Materials Chemistry C</i> , 2016, 4, 2056-2071.	5.5	71
8	Liquid Lenses and Driving Mechanisms: A Review. <i>Journal of Adhesion Science and Technology</i> , 2012, 26, 1773-1788.	2.6	67
9	Effect of oxygen plasma on the surface states of ZnO films used to produce thin-film transistors on soft plastic sheets. <i>Journal of Materials Chemistry C</i> , 2013, 1, 6613.	5.5	65
10	A highly sensitive and selective cyanide detection using a gold nanoparticle-based dual fluorescence colorimetric sensor with a wide concentration range. <i>Sensors and Actuators B: Chemical</i> , 2016, 227, 283-290.	7.8	61
11	Simple bare gold nanoparticles for rapid colorimetric detection of Cr ³⁺ ions in aqueous medium with real sample applications. <i>Sensors and Actuators B: Chemical</i> , 2016, 226, 44-51.	7.8	61
12	PolySi-SiO ₂ -ZrO ₂ -SiO ₂ -Si Flash Memory Incorporating a Sol-Gel-Derived ZrO ₂ Charge Trapping Layer. <i>Journal of the Electrochemical Society</i> , 2006, 153, G934.	2.9	55
13	An enzymatic kinetics investigation into the significantly enhanced activity of functionalized gold nanoparticles. <i>Chemical Communications</i> , 2008, , 5327.	4.1	54
14	Potential role of gold nanoparticles for improved analytical methods: an introduction to characterizations and applications. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 103-118.	3.7	54
15	Rapid fabrication of high quality self-assembled nanometer gold particles by spin coating method. <i>Microelectronic Engineering</i> , 2003, 67-68, 702-709.	2.4	53
16	Size-modulated catalytic activity of enzyme nanoparticle conjugates: a combined kinetic and theoretical study. <i>Chemical Communications</i> , 2011, 47, 7446.	4.1	53
17	Eco-Friendly and Biodegradable Biopolymer Chitosan/Y ₂ O ₃ Composite Materials in Flexible Organic Thin-Film Transistors. <i>Materials</i> , 2017, 10, 1026.	2.9	40
18	Development of extremely stable dual functionalized gold nanoparticles for effective colorimetric detection of clenbuterol and ractopamine in human urine samples. <i>Analytica Chimica Acta</i> , 2018, 1023, 96-104.	5.4	39

#	ARTICLE	IF	CITATIONS
19	A rapid and portable sensor based on protein-modified gold nanoparticle probes and lateral flow assay for naked eye detection of mercury ion. <i>Microelectronic Engineering</i> , 2012, 97, 294-296.	2.4	36
20	Self-organized tantalum oxide nanopyramidal arrays for antireflective structure. <i>Applied Physics Letters</i> , 2007, 90, 171911.	3.3	34
21	Nanodiamonds conjugated to gold nanoparticles for colorimetric detection of clenbuterol and chromium(III) in urine. <i>Mikrochimica Acta</i> , 2018, 185, 74.	5.0	34
22	Cysteamine-capped gold-copper nanoclusters for fluorometric determination and imaging of chromium(VI) and dopamine. <i>Mikrochimica Acta</i> , 2019, 186, 788.	5.0	32
23	Plasma-made silicon nanograss and related nanostructures. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 174010.	2.8	31
24	Bioinspired hole-conducting polymers for application in organic light-emitting diodes. <i>Journal of Materials Chemistry</i> , 2012, 22, 18127.	6.7	31
25	Novel anthracene- and pyridine-containing Schiff base probe for selective "off-on" fluorescent determination of Cu ²⁺ ions towards live cell application. <i>New Journal of Chemistry</i> , 2016, 40, 6101-6108.	2.8	31
26	Ultrathin single-crystalline silicon solar cells for mechanically flexible and optimal surface morphology designs. <i>Microelectronic Engineering</i> , 2015, 145, 128-132.	2.4	30
27	A Nanodot Array Modulates Cell Adhesion and Induces an Apoptosis-Like Abnormality in NIH-3T3 Cells. <i>Nanoscale Research Letters</i> , 2009, 4, 903-912.	5.7	28
28	Effect of Ti doping concentration on resistive switching behaviors of Yb ₂ O ₃ memory cell. <i>Applied Physics Letters</i> , 2012, 101, 083506.	3.3	28
29	Facile synthesis of a biocompatible silver nanoparticle derived tripeptide supramolecular hydrogel for antibacterial wound dressings. <i>New Journal of Chemistry</i> , 2016, 40, 2036-2043.	2.8	27
30	Improved reliability from a plasma-assisted metal-insulator-metal capacitor comprising a high-k HfO ₂ film on a flexible polyimide substrate. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 2582.	2.8	26
31	Cysteamine-modified diamond nanoparticles applied in cellular imaging and Hg ₂ ⁺ ions detection. <i>Applied Surface Science</i> , 2019, 465, 340-350.	6.1	26
32	Broadband and wide angle antireflection of sub-20 nm GaAs nanograss. <i>Energy and Environmental Science</i> , 2012, 5, 7601.	30.8	25
33	Bioinspired supramolecular fibers for mercury ion adsorption. <i>Journal of Materials Chemistry A</i> , 2013, 1, 7745.	10.3	23
34	New Synthesis Route of Hydrogel through A Bioinspired Supramolecular Approach: Gelation, Binding Interaction, and in Vitro Dressing. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 19306-19315.	8.0	22
35	Self-aligned tantalum oxide nanodot arrays through anodic alumina template. <i>Microelectronic Engineering</i> , 2006, 83, 1567-1570.	2.4	21
36	Resistive Switching Characteristics of Tm ₂ O ₃ , Yb ₂ O ₃ , and Lu ₂ O ₃ -Based Metal-Insulator-Metal Memory Devices. <i>IEEE Nanotechnology Magazine</i> , 2012, 11, 1040-1046.	2.0	21

#	ARTICLE	IF	CITATIONS
37	Ultralow Reflection from Si Nanograss/Si Nanofrustum Double Layers. <i>Advanced Materials</i> , 2013, 25, 1724-1728.	21.0	21
38	Physical Characterization and Electrical Properties of Sol-Gel-Derived Zirconia Films. <i>Journal of the Electrochemical Society</i> , 2006, 153, F94.	2.9	19
39	Novel Chemical Route to Prepare a New Polymer Blend Gate Dielectric for Flexible Low-Voltage Organic Thin-Film Transistor. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 3261-3269.	8.0	19
40	Separation and Study of the Optical Properties of Silver Nanocubes by Capillary Electrophoresis. <i>Chemistry Letters</i> , 2004, 33, 902-903.	1.3	18
41	Hafnium silicate nanocrystal memory using sol-gel-spin-coating method. <i>IEEE Electron Device Letters</i> , 2006, 27, 644-646.	3.9	18
42	Nucleobase-grafted polycaprolactones as reversible networks in a novel biocompatible material. <i>RSC Advances</i> , 2013, 3, 12598.	3.6	18
43	An Affordable Wet Chemical Route to Grow Conducting Hybrid Graphite-Diamond Nanowires: Demonstration by A Single Nanowire Device. <i>Scientific Reports</i> , 2017, 7, 11243.	3.3	18
44	Characterization of imprinting polymeric temperature variation with fluorescent Rhodamine B molecule. <i>Microelectronic Engineering</i> , 2006, 83, 864-868.	2.4	16
45	Miniaturized metal semiconductor metal photocurrent system for biomolecular sensing via chemiluminescence. <i>Electrophoresis</i> , 2009, 30, 3189-3197.	2.4	16
46	Fabrication and enhanced field emission properties of novel silicon nanostructures. <i>Microelectronics Reliability</i> , 2010, 50, 1973-1976.	1.7	16
47	New self-assembled supramolecular polymers formed by self-complementary sextuple hydrogen bond motifs. <i>RSC Advances</i> , 2012, 2, 9952.	3.6	16
48	Thin-Film Composite Materials as a Dielectric Layer for Flexible Metal-Insulator-Metal Capacitors. <i>ChemSusChem</i> , 2010, 3, 1051-1056.	6.8	15
49	A flexible and miniaturized hair dye based photodetector via chemiluminescence pathway. <i>Biosensors and Bioelectronics</i> , 2017, 90, 349-355.	10.1	15
50	The preferential accumulation of cadmium ions among various tissues in mice. <i>Toxicology Reports</i> , 2022, 9, 111-119.	3.3	15
51	Design of Artificial Hollow Moth-Eye Structures Using Anodic Nanocones for High-Performance Optics. <i>Chemistry of Materials</i> , 2010, 22, 6583-6589.	6.7	14
52	Highly reliable Si ₃ N ₄ /HfO ₂ stacked heterostructure to fully flexible poly-(3-hexylthiophene) thin-film transistor. <i>Organic Electronics</i> , 2011, 12, 1414-1421.	2.6	14
53	Aptamer based surface enhanced Raman scattering detection of adenosine using various core sizes of Au@Ag core-shell nanoparticles. <i>RSC Advances</i> , 2014, 4, 26251-26257.	3.6	14
54	Evaluation of Metal Migration and Determination of Trace Metals after Microwave Digestion for Lithographic Materials. <i>Analytical Chemistry</i> , 1999, 71, 5413-5419.	6.5	13

#	ARTICLE	IF	CITATIONS
55	Electrical signal amplification of DNA hybridization by nanoparticles in a nanoscale gap. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	12
56	Facile preparation of sol-gel-derived ultrathin and high-dielectric zirconia films for capacitor devices. <i>Applied Surface Science</i> , 2012, 258, 10084-10088.	6.1	12
57	Aqueous Solution-Processable, Flexible Thin-Film Transistors Based on Crosslinked Chitosan Dielectric Thin Films. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700468.	3.6	12
58	Effect of different gold nanoparticle sizes to build an electrical detection DNA between nanogap electrodes. <i>Microelectronic Engineering</i> , 2007, 84, 1698-1701.	2.4	11
59	Polystyrene-block-poly(methylmethacrylate) composite material film as a gate dielectric for plastic thin-film transistor applications. <i>RSC Advances</i> , 2014, 4, 18493-18502.	3.6	11
60	Ultra-fast and sensitive silicon nanobelt field-effect transistor for high-throughput screening of alpha-fetoprotein. <i>Sensors and Actuators B: Chemical</i> , 2018, 256, 1114-1121.	7.8	11
61	Using nanopillars of silicon oxide as a versatile platform for visualizing a selective immunosorbent. <i>Applied Physics Letters</i> , 2013, 102, 251903.	3.3	10
62	Supramolecular polymeric micelles as high performance electrochemical materials. <i>Journal of Materials Chemistry C</i> , 2015, 3, 9528-9533.	5.5	10
63	Solution processable bilayered gate dielectric towards flexible organic thin film transistors. <i>Organic Electronics</i> , 2015, 19, 120-130.	2.6	9
64	Mechanism and Modeling of Ring Pattern Formation for Electron Beam Exposure on Zwitterresist. <i>Japanese Journal of Applied Physics</i> , 2003, 42, 3838-3841.	1.5	8
65	Plasma-enhanced flexible metal-insulator-metal capacitor using high-k ZrO ₂ film as gate dielectric with improved reliability. <i>Microelectronics Reliability</i> , 2010, 50, 1098-1102.	1.7	8
66	A Robust Data Retention Characteristic of Sol-Gel-Derived Nanocrystal Memory by Hot-Hole Trapping. <i>IEEE Electron Device Letters</i> , 2010, 31, 746-748.	3.9	8
67	A novel electronic assay based on a sol-gel transition reaction and a thin-film transistor of supramolecular hydrogels to detect alkaline phosphatase activity. <i>Sensors and Actuators B: Chemical</i> , 2021, 334, 129591.	7.8	8
68	Facile synthetic route to implement a fully bendable organic metal-insulator-semiconductor device on polyimide sheet. <i>Organic Electronics</i> , 2012, 13, 721-732.	2.6	7
69	Effect of Metal Ions on Hybrid Graphite-Diamond Nanowire Growth: Conductivity Measurements from a Single Nanowire Device. <i>Nanomaterials</i> , 2019, 9, 415.	4.1	7
70	One-pot synthesis of copper nanoconjugate materials as luminescent sensor for Fe ³⁺ and I ⁻ detection in human urine sample. <i>Sensing and Bio-Sensing Research</i> , 2020, 27, 100319.	4.2	7
71	Knitting up 2,7-disubstituted carbazole based oligomers through supramolecular interactions for their application in organic thin film transistors. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5227-5235.	2.8	6
72	Fabrication of SONOS-Type Flash Memory with the Binary High-k Dielectrics by the Sol-Gel Spin Coating Method. <i>Journal of the Electrochemical Society</i> , 2007, 154, H268.	2.9	5

#	ARTICLE	IF	CITATIONS
73	Hybridization sensing by electrical enhancement with nanoparticles in nanogap. Journal of Vacuum Science & Technology B, 2008, 26, 2572-2577.	1.3	5
74	Nanocrystallization and interfacial tension of sol-gel derived memory. Applied Physics Letters, 2008, 92, 123111.	3.3	5
75	Highly Transparent and Surface-Plasmon-Enhanced Visible-Photodetector Based on Zinc Oxide Thin-Film Transistors with Heterojunction Structure. Materials, 2019, 12, 3639.	2.9	5
76	The Multifunctionally Graded System for a Controlled Size Effect on Iron Oxideâ€“Gold Based Core-Shell Nanoparticles. Nanomaterials, 2021, 11, 1695.	4.1	5
77	Soft-mold-induced self-construction of polymer patterns under microwave irradiation. Applied Physics Letters, 2007, 90, 191901.	3.3	4
78	Controlled deposition of new organic ultrathin film as a gate dielectric layer for advanced flexible capacitor devices. Journal of Materials Science: Materials in Electronics, 2013, 24, 1807-1812.	2.2	4
79	Control of active semiconducting layer packing in organic thin film transistors through synthetic tailoring of dielectric materials. RSC Advances, 2014, 4, 29383-29392.	3.6	4
80	Piezo-enhanced Thermoelectric Properties of Highly Preferred <i>c</i> -Axis ZnO Nanocrystal Films: Implications for Energy Harvesting. ACS Applied Nano Materials, 2021, 4, 9430-9439.	5.0	4
81	Concept for Efficient Light Harvesting in Perovskite Materials via Solar Harvester with Multi-Functional Folded Electrode. Nanomaterials, 2021, 11, 3362.	4.1	4
82	Bio-Inspired Supramolecular Chemistry Provides Highly Concentrated Dispersions of Carbon Nanotubes in Polythiophene. Materials, 2016, 9, 438.	2.9	3
83	Supramolecular control over the morphology of bio-inspired poly(3-hexylthiophene) for organic thin film transistors. Organic Electronics, 2017, 41, 221-228.	2.6	3
84	Ultraviolet Photodetecting and Plasmon-to-Electric Conversion of Controlled Inkjet-Printing Thin-Film Transistors. Nanomaterials, 2020, 10, 458.	4.1	3
85	Use of curcumin-modified diamond nanoparticles in cellular imaging and the distinct ratiometric detection of Mg ²⁺ /Mn ²⁺ ions. Nanoscale Advances, 2021, 3, 4459-4470.	4.6	3
86	Screen-Printable Silver Paste Material for Semitransparent and Flexible Metalâ€“Semiconductorâ€“Metal Photodetectors with Liquid-Phase Procedure. Nanomaterials, 2022, 12, 2428.	4.1	3
87	Room temperature self-organized gold nanoparticles materials for embedded electronic devices. Journal of Materials Science: Materials in Electronics, 2013, 24, 376-381.	2.2	2
88	Facile solâ€“gel preparation of nanocrystal embedded thin film material for memory device. Journal of Materials Science: Materials in Electronics, 2013, 24, 423-430.	2.2	2
89	Using Novel Method to Detect Different Cancerâ€“Cell Stages of Model Human Lung Carcinoma. Journal of Clinical Laboratory Analysis, 2015, 29, 285-288.	2.1	2
90	Trivalent Cations Detection of Magnetic-Sensitive Microcapsules by Controlled-Release Fluorescence Off-On Sensor. Nanomaterials, 2021, 11, 1801.	4.1	2

#	ARTICLE	IF	CITATIONS
91	Fullerene-incorporation for enhancing the electron beam resist performance for contact hole patterning and filling. <i>Thin Solid Films</i> , 2006, 500, 214-218.	1.8	1
92	Stress-induced morphology and fine-line stability enhancement of NiSi on poly-SiGe with a buffer polycrystalline silicon interlayer. <i>Applied Physics Letters</i> , 2008, 92, 182106.	3.3	1
93	Studying the enhancement of programmed cell death by combined AG1024 and paclitaxel in a model of chronic myelogenous leukemia. <i>Life Sciences</i> , 2014, 102, 118-126.	4.3	1
94	High photothermal properties in silicon nanostructures. , 2016, , .		1
95	Controllable Ink-Jet Printing Technique on Various Channel Width Designs toward Zinc Oxide-Based Thin Film Transistor. , 2016, , .		1
96	Comparison of the Physical and Electrical Properties of HfO ₂ /Al ₂ O ₃ /HfO ₂ /GeO _x /Ge and HfO ₂ /Al ₂ O ₃ /GeO _x /Ge Gate Stacks. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 4529-4534.	0.9	1
97	Catalytic behaviors in modulating enzymatic activity through different-sized gold nanoparticles. , 2010, , .		0
98	Nanowire field effect transistor with its sub-picomolar label-free biosensing capability toward a gene mutation. , 2010, , .		0
99	Plasma made antireflective GaAs nanograss. , 2012, , .		0
100	High optical conversion capability within the interface between graphene and Si under zero bias and visible to near infrared regime. , 2016, , .		0
101	Weathering-Resistant Replicas Fabricated by a Three-Dimensional Printing Robotic Platform Induce Shoaling Behavior in Zebrafish. <i>Sensors</i> , 2022, 22, 3481.	3.8	0