

Hyun-June Jang

List of Publications by Year in descending order

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32
papers

1,129
citations

471509

17
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454955

30
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32
all docs

32
docs citations

32
times ranked

1521
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemical and Biomolecule Sensing with Organic Field-Effect Transistors. <i>Chemical Reviews</i> , 2019, 119, 3-35.	47.7	317
2	Performance Enhancement of Capacitive-Coupling Dual-gate Ion-Sensitive Field-Effect Transistor in Ultra-Thin-Body. <i>Scientific Reports</i> , 2014, 4, 5284.	3.3	84
3	Extended Solution Gate OFET-Based Biosensor for Label-Free Glial Fibrillary Acidic Protein Detection with Polyethylene Glycol-Containing Bioreceptor Layer. <i>Advanced Functional Materials</i> , 2017, 27, 1606506.	14.9	70
4	Electronic Cortisol Detection Using an Antibody-Embedded Polymer Coupled to a Field-Effect Transistor. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 16233-16237.	8.0	62
5	Fabrication of high-performance fully depleted silicon-on-insulator based dual-gate ion-sensitive field-effect transistor beyond the Nernstian limit. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	61
6	Sensitivity enhancement of amorphous InGaZnO thin film transistor based extended gate field-effect transistors with dual-gate operation. <i>Sensors and Actuators B: Chemical</i> , 2013, 181, 880-884.	7.8	61
7	Highly sensitive electrolyte-insulator-semiconductor pH sensors enabled by silicon nanowires with Al ₂ O ₃ /SiO ₂ sensing membrane. <i>Sensors and Actuators B: Chemical</i> , 2012, 171-172, 238-243.	7.8	60
8	Electrical signaling of enzyme-linked immunosorbent assays with an ion-sensitive field-effect transistor. <i>Biosensors and Bioelectronics</i> , 2015, 64, 318-323.	10.1	49
9	SOI dual-gate ISFET with variable oxide capacitance and channel thickness. <i>Solid-State Electronics</i> , 2014, 97, 2-7.	1.4	46
10	A self-amplified transistor immunosensor under dual gate operation: highly sensitive detection of hepatitis B surface antigen. <i>Nanoscale</i> , 2015, 7, 16789-16797.	5.6	45
11	High performance silicon-on-insulator based ion-sensitive field-effect transistor using high-k stacked oxide sensing membrane. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	40
12	High Performance of Silicon Nanowire-Based Biosensors using a High-k Stacked Sensing Thin Film. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 5214-5218.	8.0	36
13	Development of Engineered Sensing Membranes for Field-Effect Ion-Sensitive Devices Based on Stacked High- κ Dielectric Layers. <i>IEEE Electron Device Letters</i> , 2011, 32, 973-975.	3.9	27
14	Improved sensing performance of polycrystalline-silicon based dual-gate ion-sensitive field-effect transistors using high-k stacking engineered sensing membrane. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	26
15	Influence of Bioreceptor Layer Structure on Myelin Basic Protein Detection using Organic Field Effect Transistor-Based Biosensors. <i>Advanced Functional Materials</i> , 2018, 28, 1802605.	14.9	25
16	3D-Transistor Array Based on Horizontally Suspended Silicon Nano-bridges Grown via a Bottom-Up Technique. <i>Advanced Materials</i> , 2014, 26, 1929-1934.	21.0	21
17	Enhanced and unconventional responses in chemiresistive sensing devices for nitrogen dioxide and ammonia from carboxylated alkylthiophene polymers. <i>Materials Horizons</i> , 2020, 7, 1358-1371.	12.2	17
18	Analytical Platform To Characterize Dopant Solution Concentrations, Charge Carrier Densities in Films and Interfaces, and Physical Diffusion in Polymers Utilizing Remote Field-Effect Transistors. <i>Journal of the American Chemical Society</i> , 2019, 141, 4861-4869.	13.7	16

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19	Fabrication of High Performance Ion-Sensitive Field-Effect Transistors Using an Engineered Sensing Membrane for Bio-Sensor Application. Japanese Journal of Applied Physics, 2012, 51, 02BL05.	1.5	10
20	Remote Floating-Gate Field-Effect Transistor with 2-Dimensional Reduced Graphene Oxide Sensing Layer for Reliable Detection of SARS-CoV-2 Spike Proteins. ACS Applied Materials & Interfaces, 2022, 14, 24187-24196.	8.0	10
21	Self-Amplified Dual Gate Charge Trap Flash Memory for Low-Voltage Operation. IEEE Electron Device Letters, 2013, 34, 756-758.	3.9	9
22	Enhanced Sensing Properties by Dual-Gate Ion-Sensitive Field-Effect Transistor Using the Solution-Processed Al ₂ O ₃ Sensing Membranes. Japanese Journal of Applied Physics, 2013, 52, 06GK03.	1.5	8
23	Fabrication of High Performance Ion-Sensitive Field-Effect Transistors Using an Engineered Sensing Membrane for Bio-Sensor Application. Japanese Journal of Applied Physics, 2012, 51, 02BL05.	1.5	6
24	Carboxylic Acid-Functionalized Conjugated Polymer Promoting Diminished Electronic Drift and Amplified Proton Sensitivity of Remote Gates Compared to Nonpolar Surfaces in Aqueous Media. Advanced Electronic Materials, 2020, 6, 1901073.	5.1	5
25	Suppression of Ionic Doping by Molecular Dopants in Conjugated Polymers for Improving Specificity and Sensitivity in Biosensing Applications. ACS Applied Materials & Interfaces, 2020, 12, 45036-45044.	8.0	4
26	Saliva-Based Screening Approach for Alzheimer's Disease via the Cell-Oriented Ion-Sensitive Field-Effect Transistor. Sensor Letters, 2014, 12, 1096-1101.	0.4	4
27	Biomimetic Trehalose Biosensor Using Gustatory Receptor (Gr5a) Expressed in Drosophila Cells and Ion-Sensitive Field-Effect Transistor. Japanese Journal of Applied Physics, 2013, 52, 04CL02.	1.5	3
28	Contributions to composite conductivity and Seebeck coefficient in commercial Bi ₂ Te ₃ -Conjugated polymer composites. Journal of Applied Physics, 2019, 125, .	2.5	3
29	Top-down Fabrication and Enhanced Active Area Electronic Characteristics of Amorphous Oxide Nanoribbons for Flexible Electronics. Scientific Reports, 2017, 7, 5728.	3.3	2
30	Silicon Nanowire Integrated Electrolyte-Insulator-Semiconductor Sensor with an Above-Nernstian Sensitivity for Bio-Sensing Applications. Materials Research Society Symposia Proceedings, 2012, 1439, 127-132.	0.1	1
31	Material and circuit design for organic electronic vapor sensors and biosensors. , 2019, , .		1
32	Nano-bridge enabled three-dimensional gate-all-around field effect transistors. , 2014, , .		0