

# Fahmi F Muhammad

## List of Publications by Year in descending order

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70  
papers

1,153  
citations

448610

19  
h-index

488211

31  
g-index

75  
all docs

75  
docs citations

75  
times ranked

893  
citing authors

#	ARTICLE	IF	CITATIONS
1	Utilization of device parameters to assess the performance of a monocrystalline solar module under varied temperature and irradiance. <i>Energy Systems</i> , 2023, 14, 229-241.	1.8	5
2	The Correlation of Device Parameters with Illumination Energy to Explore the Performance of a Monocrystalline Silicon Solar Module. <i>Silicon</i> , 2022, 14, 1439-1445.	1.8	6
3	A New Simplified Method for Efficient Extraction of Solar Cells and Modules Parameters from Datasheet Information. <i>Silicon</i> , 2022, 14, 3059-3067.	1.8	8
4	A Study On the Optoelectronic Parameters of Natural Dyes Extracted from Beetroot, Cabbage, Walnut, and Henna for Potential Applications in Organic Electronics. <i>Journal of Fluorescence</i> , 2022, 32, 203-213.	1.3	4
5	Simulation and lithographic fabrication of a triple band terahertz metamaterial absorber coated on flexible polyethylene terephthalate substrate. <i>Optical Materials Express</i> , 2022, 12, 338.	1.6	38
6	Template-assisted humidity sensors based on PFO-DBT nanotubes: fabrication and characterization. <i>Optical and Quantum Electronics</i> , 2022, 54, .	1.5	0
7	A new approach to optimize the active layers of photovoltaic devices using area under the curve of absorption profile. <i>Optical and Quantum Electronics</i> , 2022, 54, .	1.5	0
8	A study on optoelectronics and spectroscopic properties of TPD:Alq3 heterojunction films for the application of UV sensors. <i>Physica B: Condensed Matter</i> , 2021, 600, 412546.	1.3	6
9	The impact of TiO <sub>2</sub> nanostructures on the physical properties and electrical performance of organic solar cells based on PTB7:PC71BM bulk heterojunctions. <i>Materials Today: Proceedings</i> , 2021, 42, 1921-1927.	0.9	3
10	A comparative study of nature-inspired metaheuristic algorithms using a three-phase hybrid approach for gene selection and classification in high-dimensional cancer datasets. <i>Soft Computing</i> , 2021, 25, 8683-8701.	2.1	18
11	An investigation on the optical parameters of TPD:Alq3 composite thin films. <i>Physica B: Condensed Matter</i> , 2021, 606, 412816.	1.3	1
12	Synthesis, spectroscopic, electrochemical and photophysical properties of high band gap polymers for potential applications in semi-transparent solar cells. <i>BMC Chemistry</i> , 2021, 15, 25.	1.6	24
13	Effect of illumination intensity on a self-powered UV photodiode based on solution-processed NPD:Alq3 composite system. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 14801-14812.	1.1	3
14	Effect of grating length on the response of fiber bragg grating bonded with graphene on polymer plate. <i>Optical and Quantum Electronics</i> , 2021, 53, 1.	1.5	0
15	A thermally stable and polarization insensitive square-shaped water metamaterial with ultra-broadband absorption. <i>Journal of Materials Research and Technology</i> , 2021, 13, 1150-1158.	2.6	23
16	An ultrathin and dual band metamaterial perfect absorber based on ZnSe for the polarization-independent in terahertz range. <i>Results in Physics</i> , 2021, 26, 104344.	2.0	34
17	Utilization of a triple hexagonal split ring resonator (SRR) based metamaterial sensor for the improved detection of fuel adulteration. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 24258-24272.	1.1	14
18	A novel self-powered photodiode based on solution-processed organic TPD:Alq3 active layer. <i>Materials Science in Semiconductor Processing</i> , 2021, 131, 105886.	1.9	12

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19	Impact of Zn <sup>2+</sup> ions co-doping on the TL properties of Cu <sup>2+</sup> ion-doped calcium lithium borate glass irradiated by various radiation sources. <i>Journal of Luminescence</i> , 2021, 236, 118091.	1.5	4
20	Effect of pressure on the electrical properties of flexible NiPc thin films fabricated by rubbing-in technology. <i>Chinese Physics B</i> , 2021, 30, 014703.	0.7	2
21	HDG-select: A novel GUI based application for gene selection and classification in high dimensional datasets. <i>PLoS ONE</i> , 2021, 16, e0246039.	1.1	5
22	Hypersensitized Metamaterials Based on a Corona-Shaped Resonator for Efficient Detection of Glucose. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 103.	1.3	12
23	Efficiency and Stability Improvement of Organic Solar Cells Based on PTB7:PCBM Through Hot-Substrate Coating. <i>Journal of Electronic Materials</i> , 2021, 50, 6828-6835.	1.0	5
24	Improvement of capacitive humidity sensors using tris(8-hydroxyquinoline) gallium (Gaq <sub>3</sub> ) nanofibers as a dielectric layer. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 21702-21710.	1.1	3
25	The Detection of Chemical Materials with a Metamaterial-Based Sensor Incorporating Oval Wing Resonators. <i>Electronics (Switzerland)</i> , 2020, 9, 825.	1.8	25
26	Design and study of a metamaterial based sensor for the application of liquid chemicals detection. <i>Journal of Materials Research and Technology</i> , 2020, 9, 10291-10304.	2.6	60
27	Multipurpose chemical liquid sensing applications by microwave approach. <i>PLoS ONE</i> , 2020, 15, e0232460.	1.1	12
28	A new insight into the temperature induced molecular aggregations in tris(8-hydroxyquinoline) metals. <i>Journal of Materials Research and Technology</i> , 2020, 9, 4558-4565.	2.6	9
29	Design of a Broadband Coplanar Waveguide-Fed Antenna Incorporating Organic Solar Cells with 100% Insolation for Ku Band Satellite Communication. <i>Materials</i> , 2020, 13, 142.	1.3	7
30	Novel Metamaterials-Based Hypersensitized Liquid Sensor Integrating Omega-Shaped Resonator with Microstrip Transmission Line. <i>Sensors</i> , 2020, 20, 943.	2.1	48
31	Bandwidth Improvement in Bow-Tie Microstrip Antennas: The Effect of Substrate Type and Design Dimensions. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 504.	1.3	19
32	Electromagnetic simulations of polarization-insensitive and wide-angle multiband metamaterial absorber by incorporating double asterisk resonator. <i>Bulletin of Materials Science</i> , 2020, 43, 1.	0.8	16
33	Bias stability of solution-processed In <sub>2</sub> O <sub>3</sub> thin film transistors. <i>JPhys Materials</i> , 2020, 4, 015003.	1.8	5
34	A Low-Profile Antenna Based on Single-Layer Metasurface for Ku-Band Applications. <i>International Journal of Antennas and Propagation</i> , 2020, 2020, 1-8.	0.7	19
35	Enhanced Performance of PTB7:PC <sub>71</sub> BM Based Organic Solar Cells by Incorporating a Nano-Layered Electron Transport of Titanium Oxide. <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 105003.	0.9	8
36	Multipurpose chemical liquid sensing applications by microwave approach. , 2020, 15, e0232460.		0

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37	Multipurpose chemical liquid sensing applications by microwave approach. , 2020, 15, e0232460.		0
38	Multipurpose chemical liquid sensing applications by microwave approach. , 2020, 15, e0232460.		0
39	Multipurpose chemical liquid sensing applications by microwave approach. , 2020, 15, e0232460.		0
40	Brent's algorithm based new computational approach for accurate determination of single-diode model parameters to simulate solar cells and modules. Solar Energy, 2019, 193, 782-798.	2.9	32
41	Enhanced light absorption in the organic thin films by coating cross-shaped metamaterial resonators onto the active layers. Results in Physics, 2019, 13, 102338.	2.0	13
42	Simple and efficient estimation of photovoltaic cells and modules parameters using approximation and correction technique. PLoS ONE, 2019, 14, e0216201.	1.1	49
43	Effect of Thermal Annealing on a Ternary Organic Solar Cell Incorporating Gaq3 Organometallic as a Boosting Acceptor. Journal of Inorganic and Organometallic Polymers and Materials, 2018, 28, 102-109.	1.9	15
44	Gene Selection and Classification in Microarray Datasets using a Hybrid Approach of PCC-BPSO/GA with Multi Classifiers. Journal of Computer Science, 2018, 14, 868-880.	0.5	12
45	Thermal Stability and Reproducibility Enhancement of Organic Solar Cells by Tris(hydroxyquinoline)gallium Dopant Forming a Dual Acceptor Active Layer. ARO-the Scientific Journal of Koya University, 2018, 6, 69.	0.2	12
46	Optical sensors based on the NiPc-CoPc composite films deposited by drop casting and under the action of centrifugal force. Chinese Physics B, 2017, 26, 060704.	0.7	3
47	Tuning the extinction coefficient, refractive index, dielectric constant and optical conductivity of Gaq3 films for the application of OLED displays technology. Journal of Materials Science: Materials in Electronics, 2017, 28, 14777-14786.	1.1	19
48	Effect of ambient temperature on the efficiency of the PCPDTBT: PC71BM BHJ solar cells. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	15
49	Improving the performance of solution-processed organic solar cells by incorporating small molecule acceptors into a ternary bulk heterojunction based on DH6T:Mq3:PCBM (M=Ag, Al). Materials Chemistry and Physics, 2017, 188, 86-94.	2.0	25
50	Employment of single-diode model to elucidate the variations in photovoltaic parameters under different electrical and thermal conditions. PLoS ONE, 2017, 12, e0182925.	1.1	32
51	Selection and classification of gene expression in autism disorder: Use of a combination of statistical filters and a GBPSO-SVM algorithm. PLoS ONE, 2017, 12, e0187371.	1.1	27
52	Electrical properties of Al/PTB7-Th/n-Si metal-polymer-semiconductor Schottky barrier diode. Synthetic Metals, 2016, 221, 169-175.	2.1	33
53	The study of structural and optical properties of PVA:PbO2 based solid polymer nanocomposites. Journal of Materials Science: Materials in Electronics, 2016, 27, 12112-12118.	1.1	71
54	Synthesis and characterization of 2,2'-bithiophene end-capped dihexyloxy phenylene pentamer and its application in a solution-processed organic ultraviolet photodetector. RSC Advances, 2016, 6, 61848-61859.	1.7	8

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55	A study on the spectroscopic, energy band, and optoelectronic properties of $\lambda$ -dihexylsextiophene/tris(8-hydroxyquinolate) gallium blends; DH6T/Gaq3 composite system. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2016, 169, 144-151.	2.0	11
56	Impedance spectroscopy analysis of DH6T:PCBM bulk heterojunction incorporating Gaq3: experiment and model. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 637-644.	1.1	11
57	Optical Response and Photovoltaic Performance of Organic Solar Cells Based on DH6T:Alq3 Active Layer. <i>Journal of Technology Innovations in Renewable Energy</i> , 2016, 5, 3-10.	0.2	3
58	Investigation of Photo-Absorption and Current-Voltage Properties of Liquid Extracts from Fruits for Organic Solar Cells Application. <i>Journal of Technology Innovations in Renewable Energy</i> , 2016, 5, 11-17.	0.2	0
59	Effect of the dopant salt on the optical parameters of PVA:NaNO <sub>3</sub> solid polymer electrolyte. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 521-529.	1.1	84
60	Effect of Series and Parallel Shading on the Photovoltaic Performance of Silicon Based Solar Panels. <i>Journal of Technology Innovations in Renewable Energy</i> , 2015, 4, 152-156.	0.2	4
61	Optical and morphological modifications in post-thermally treated tris(8-hydroxyquinoline) gallium films deposited on quartz substrates. <i>Materials Chemistry and Physics</i> , 2014, 148, 473-477.	2.0	18
62	Design Approaches to Improve Organic Solar Cells. <i>Journal of Technology Innovations in Renewable Energy</i> , 2014, 3, 63-71.	0.2	8
63	Effects of thermal annealing on the optical, spectroscopic, and structural properties of tris (8-hydroxyquinolate) gallium films grown on quartz substrates. <i>Materials Chemistry and Physics</i> , 2011, 129, 1152-1158.	2.0	27
64	Utilizing a simple and reliable method to investigate the optical functions of small molecular organic films $\lambda$ -Alq3 and Gaq3 as examples. <i>Measurement: Journal of the International Measurement Confederation</i> , 2011, 44, 1468-1474.	2.5	64
65	Photovoltaic performance of organic solar cells based on DH6T/PCBM thin film active layers. <i>Thin Solid Films</i> , 2011, 519, 5230-5233.	0.8	32
66	Study of optoelectronic energy bands and molecular energy levels of tris (8-hydroxyquinolate) gallium and aluminum organometallic materials from their spectroscopic and electrochemical analysis. <i>Journal of Organometallic Chemistry</i> , 2010, 695, 2526-2531.	0.8	61
67	Morphology Impact on the Absorption Behaviour of Post-Thermally Treated Tris(8-Hydroxyquinoline) Gallium Films. <i>International Letters of Chemistry, Physics and Astronomy</i> , 0, 58, 47-51.	0.0	1
68	Performance Analysis of a Mini-Thermoelectric Engine for the Generation of Electricity. <i>International Journal of Engineering and Technologies</i> , 0, 6, 20-29.	0.0	0
69	The Impact of Sunlight Intensity and Outdoor Temperature on the Performance of Inorganic Solar Panels. <i>International Letters of Chemistry, Physics and Astronomy</i> , 0, 67, 58-64.	0.0	2
70	A study on tuning the optical properties of stacked SiN/SiO <sub>2</sub> mirrors in distributed Bragg reflectors. <i>Journal of Optics (India)</i> , 0, , 1.	0.8	0