Wei Gao

List of Publications by Year
in descending order

150	29,250	4942 84	10127 140
papers	citations	h-index	g-index

160	160	160	22409
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Microrobots in the Gastrointestinal Tract. , 2022, , 349-367.		2
2	3D Porous Graphene Films with Largeâ€Area Inâ€Plane Exterior Skins. Advanced Materials Interfaces, 2022, 9, .	1.9	3
3	Wearable chemosensors. , 2022, , 219-234.		0
4	Flexible Electronics and Devices as Humanâ€"Machine Interfaces for Medical Robotics. Advanced Materials, 2022, 34, e2107902.	11.1	211
5	Wearable Bioelectronics for Chronic Wound Management. Advanced Functional Materials, 2022, 32, .	7.8	64
6	Wearable Bioelectronics for Chronic Wound Management (Adv. Funct. Mater. 17/2022). Advanced Functional Materials, 2022, 32, .	7.8	1
7	Magnetically Actuated Reactive Oxygen Species Scavenging Nanoâ€Robots for Targeted Treatment. Advanced Intelligent Systems, 2022, 4, .	3.3	11
8	Prussian Blue Nanozyme Promotes the Survival Rate of Skin Flaps by Maintaining a Normal Microenvironment. ACS Nano, 2022, 16, 9559-9571.	7.3	28
9	All-printed soft human-machine interface for robotic physicochemical sensing. Science Robotics, 2022, 7, .	9.9	105
10	An intelligent data-driven model for disease diagnosis based on machine learning theory. Journal of Combinatorial Optimization, 2021, 42, 884-895.	0.8	5
11	Wearable electrochemical biosensors in North America. Biosensors and Bioelectronics, 2021, 172, 112750.	5.3	167
12	Effective suppression of mode distortion induced by stimulated Raman scattering in high-power fiber amplifiers. High Power Laser Science and Engineering, 2021, 9, .	2.0	11
13	Prussian blue nanozyme-mediated nanoscavenger ameliorates acute pancreatitis via inhibiting TLRs/NF-Î°B signaling pathway. Theranostics, 2021, 11, 3213-3228.	4.6	58
14	Self-Powered Wearable Biosensors. Accounts of Materials Research, 2021, 2, 184-197.	5.9	118
15	A Biofuel-Cell-Based Energy Harvester With 86% Peak Efficiency and 0.25-V Minimum Input Voltage Using Source-Adaptive MPPT. IEEE Journal of Solid-State Circuits, 2021, 56, 715-728.	3.5	20
16	Ethical Considerations of Wearable Technologies in Human Research. Advanced Healthcare Materials, 2021, 10, e2100127.	3.9	19
17	Self-synergistic effect of Prussian blue nanoparticles for cancer therapy: driving photothermal therapy and reducing hyperthermia-induced side effects. Journal of Nanobiotechnology, 2021, 19, 126.	4.2	25
18	Excavating bioactivities of nanozyme to remodel microenvironment for protecting chondrocytes and delaying osteoarthritis. Bioactive Materials, 2021, 6, 2439-2451.	8.6	49

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19	A soft bioaffinity sensor array for chronic wound monitoring. Matter, 2021, 4, 2613-2615.	5.0	8
20	Wall-induced translation of a rotating particle in a shear-thinning fluid. Journal of Fluid Mechanics, 2021, 927, .	1.4	5
21	Laser-engraved graphene for flexible and wearable electronics. Trends in Chemistry, 2021, 3, 969-981.	4.4	34
22	Wearable and Implantable Devices for Healthcare. Advanced Healthcare Materials, 2021, 10, e2101548.	3.9	15
23	Editorial on â€œWearable biosensors for personalized health monitoringâ€• Talanta, 2021, 234, 122635.	2.9	0
24	Integrating Highly Porous and Flexible Au Hydrogels with Soft-MEMS Technologies for High-Performance Wearable Biosensing. Analytical Chemistry, 2021, 93, 14068-14075.	3.2	28
25	Electrical impedance tomography for non-invasive identification of fatty liver infiltrate in overweight individuals. Scientific Reports, 2021, 11, 19859.	1.6	6
26	Restoring HOXD10 Exhibits Therapeutic Potential for Ameliorating Malignant Progression and 5-Fluorouracil Resistance in Colorectal Cancer. Frontiers in Oncology, 2021, 11, 771528.	1.3	7
27	Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis. Advanced Materials, 2020, 32, e1902083.	11.1	200
28	The Era of Digital Health: A Review of Portable and Wearable Affinity Biosensors. Advanced Functional Materials, 2020, 30, 1906713.	7.8	178
29	Robotics in the Gut. Advanced Therapeutics, 2020, 3, 1900125.	1.6	50
30	A laser-engraved wearable sensor for sensitive detection of uric acid and tyrosine in sweat. Nature Biotechnology, 2020, 38, 217-224.	9.4	683
31	Wireless battery-free wearable sweat sensor powered by human motion. Science Advances, 2020, 6, .	4.7	372
32	SARS-CoV-2 RapidPlex: A Graphene-Based Multiplexed Telemedicine Platform for Rapid and Low-Cost COVID-19 Diagnosis and Monitoring. Matter, 2020, 3, 1981-1998.	5.0	347
33	Bioaffinity Sensors: The Era of Digital Health: A Review of Portable and Wearable Affinity Biosensors (Adv. Funct. Mater. 29/2020). Advanced Functional Materials, 2020, 30, 2070197.	7.8	0
34	Spray-on magnetic skin for robotic actuation. Science Robotics, 2020, 5, .	9.9	4
35	Hollow Magnetic Nanocatalysts Drive Starvationâ€“Chemodynamicâ€“Hyperthermia Synergistic Therapy for Tumor. ACS Nano, 2020, 14, 9662-9674.	7.3	103
36	Wearable Flexible Strain Sensor Based on Three-Dimensional Wavy Laser-Induced Graphene and Silicone Rubber. Sensors, 2020, 20, 4266.	2.1	50

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37	Emerging Telemedicine Tools for Remote COVID-19 Diagnosis, Monitoring, and Management. ACS Nano, 2020, 14, 16180-16193.	7.3	178
38	Skin-Interfaced Sensors in Digital Medicine: from Materials to Applications. Matter, 2020, 2, 1414-1445.	5.0	134
39	Motile microelectronics with wireless power. Nature Electronics, 2020, 3, 139-140.	13.1	4
40	Medical micro/nanorobots in complex media. Chemical Society Reviews, 2020, 49, 8088-8112.	18.7	180
41	Investigation of Cortisol Dynamics in Human Sweat Using a Graphene-Based Wireless mHealth System. Matter, 2020, 2, 921-937.	5.0	269
42	Biofuel-powered soft electronic skin with multiplexed and wireless sensing for human-machine interfaces. Science Robotics, 2020, 5, .	9.9	385
43	Flexible Electronics: Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock 10	11.1	7
44	Large-scale synthesis of monodisperse Prussian blue nanoparticles for cancer theranostics via an “in situ modification” strategy. International Journal of Nanomedicine, 2019, Volume 14, 271-288.	3.3	28
45	Macroscale Chemotaxis from a Swarm of Bacteriaâ€Mimicking Nanoswimmers. Angewandte Chemie - International Edition, 2019, 58, 12200-12205.	7.2	85
46	Macroscale Chemotaxis from a Swarm of Bacteriaâ€Mimicking Nanoswimmers. Angewandte Chemie, 2019, 131, 12328-12333.	1.6	19
47	A microrobotic system guided by photoacoustic computed tomography for targeted navigation in intestines in vivo. Science Robotics, 2019, 4, .	9.9	321
48	Coherent Energy and Charge Transport Processes in Oligothiophene Dendrimers Probed in Solution and in the Solid State with Time-Resolved Spectroscopy and Microscopy Methods. Journal of Physical Chemistry C, 2019, 123, 23419-23426.	1.5	5
49	Glucose-Fueled Micromotors with Highly Efficient Visible-Light Photocatalytic Propulsion. ACS Applied Materials & Interfaces, 2019, 11, 6201-6207.	4.0	79
50	Nanozyme-mediated catalytic nanotherapy for inflammatory bowel disease. Theranostics, 2019, 9, 2843-2855.	4.6	149
51	Physical and Chemical Sensing With Electronic Skin. Proceedings of the IEEE, 2019, 107, 2155-2167.	16.4	56
52	Hollow Prussian Blue Nanozymes Drive Neuroprotection against Ischemic Stroke via Attenuating Oxidative Stress, Counteracting Inflammation, and Suppressing Cell Apoptosis. Nano Letters, 2019, 19, 2812-2823.	4.5	203
53	Flexible and Superwettable Bands as a Platform toward Sweat Sampling and Sensing. Analytical Chemistry, 2019, 91, 4296-4300.	3.2	136
54	Flexible Electronics toward Wearable Sensing. Accounts of Chemical Research, 2019, 52, 523-533.	7.6	713

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55	Wearable and Implantable Electronics: Moving toward Precision Therapy. ACS Nano, 2019, 13, 12280-12286.	7.3	150
56	Wearable and flexible electronics for continuous molecular monitoring. Chemical Society Reviews, 2019, 48, 1465-1491.	18.7	855
57	Methylxanthine Drug Monitoring with Wearable Sweat Sensors. Advanced Materials, 2018, 30, e1707442.	11.1	226
58	Micromotors Go In Vivo: From Test Tubes to Live Animals. Advanced Functional Materials, 2018, 28, 1705640.	7.8	106
59	Superwettable Electrochemical Biosensor toward Detection of Cancer Biomarkers. ACS Sensors, 2018, 3, 72-78.	4.0	84
60	Wearable physiological systems and technologies for metabolic monitoring. Journal of Applied Physiology, 2018, 124, 548-556.	1.2	60
61	A nanozyme tag enabled chemiluminescence imaging immunoassay for multiplexed cytokine monitoring. Chemical Communications, 2018, 54, 13813-13816.	2.2	62
62	Flexible Superwettable Tapes for On-Site Detection of Heavy Metals. Analytical Chemistry, 2018, 90, 14105-14110.	3.2	59
63	Wearable pH sensing beyond the Nernst limit. Nature Electronics, 2018, 1, 580-581.	13.1	15
64	Photocatalytic Micro/Nanomotors: From Construction to Applications. Accounts of Chemical Research, 2018, 51, 1940-1947.	7.6	130
65	Prussian Blue Nanozyme with Multienzyme Activity Reduces Colitis in Mice. ACS Applied Materials & Interfaces, 2018, 10, 26108-26117.	4.0	157
66	A Wearable Microfluidic Sensing Patch for Dynamic Sweat Secretion Analysis. ACS Sensors, 2018, 3, 944-952.	4.0	285
67	Roll-to-Roll Gravure Printed Electrochemical Sensors for Wearable and Medical Devices. ACS Nano, 2018, 12, 6978-6987.	7.3	275
68	Visible-Light-Driven BiOI-Based Janus Micromotor in Pure Water. Journal of the American Chemical Society, 2017, 139, 1722-1725.	6.6	283
69	Peripherally diketopyrrolopyrrole-functionalized dendritic oligothiophenes â€" synthesis, molecular structure, properties and applications. Polymer Chemistry, 2017, 8, 1460-1476.	1.9	9
70	Light-Driven Au-WO₃@C Janus Micromotors for Rapid Photodegradation of Dye Pollutants. ACS Applied Materials & Interfaces, 2017, 9, 4674-4683.	4.0	210
71	Micro/nanorobots for biomedicine: Delivery, surgery, sensing, and detoxification. Science Robotics, 2017, 2, .	9.9	1,018
72	Autonomous sweat extraction and analysis applied to cystic fibrosis and glucose monitoring using a fully integrated wearable platform. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4625-4630.	3.3	573

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73	A sequence of 28S rRNA-derived small RNAs is enriched in mature sperm and various somatic tissues and possibly associates with inflammation. Journal of Molecular Cell Biology, 2017, 9, 256-259.	1.5	45
74	Materials, Devices and Systems of Soft Bioelectronics for Precision Therapy. Advanced Healthcare Materials, 2017, 6, 1700017.	3.9	45
75	Fuelâ€Free Synthetic Microâ€/Nanomachines. Advanced Materials, 2017, 29, 1603250.	11.1	310
76	Tuning the optical and electrochemical properties of conjugated all-thiophene dendrimers via core functionalization with a benzothiadiazole unit. RSC Advances, 2017, 7, 1606-1616.	1.7	4
77	Selective Dispersion of Largeâ€Diameter Semiconducting Carbon Nanotubes by Functionalized Conjugated Dendritic Oligothiophenes for Use in Printed Thin Film Transistors. Advanced Functional Materials, 2017, 27, 1703938.	7.8	22
78	3D Printed â€œEarableâ€•Smart Devices for Real-Time Detection of Core Body Temperature. ACS Sensors, 2017, 2, 990-997.	4.0	105
79	Microfluidic Lithography of Bioinspired Helical Micromotors. Angewandte Chemie - International Edition, 2017, 56, 12127-12131.	7.2	126
80	Microfluidic Lithography of Bioinspired Helical Micromotors. Angewandte Chemie, 2017, 129, 12295-12299.	1.6	37
81	Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring. Advanced Materials, 2017, 29, 1701985.	11.1	431
82	Emulsion Hydrogel Soft Motor Actuated by Thermal Stimulation. ACS Applied Materials & Interfaces, 2017, 9, 43211-43219.	4.0	20
83	Inhibition of Toll-Like Receptor Signaling as a Promising Therapy for Inflammatory Diseases: A Journey from Molecular to Nano Therapeutics. Frontiers in Physiology, 2017, 8, 508.	1.3	266
84	Carbon Nanotubes: Printed Carbon Nanotube Electronics and Sensor Systems (Adv. Mater. 22/2016). Advanced Materials, 2016, 28, 4396-4396.	11.1	8
85	Superfast Nearâ€Infrared Lightâ€Driven Polymer Multilayer Rockets. Small, 2016, 12, 577-582.	5.2	168
86	A Wearable Electrochemical Platform for Noninvasive Simultaneous Monitoring of Ca²⁺ and pH. ACS Nano, 2016, 10, 7216-7224.	7.3	480
87	Wearable sweat biosensors. , 2016, , .		20
88	Quantitative assessment of the influence of X-ray repair cross-complementing group 3 rs861539 polymorphism and cutaneous melanoma susceptibility. Archives of Dermatological Research, 2016, 308, 173-181.	1.1	0
89	Wearable Microsensor Array for Multiplexed Heavy Metal Monitoring of Body Fluids. ACS Sensors, 2016, 1, 866-874.	4.0	297
90	Application of 3D Printing for Smart Objects with Embedded Electronic Sensors and Systems. Advanced Materials Technologies, 2016, 1, 1600013.	3.0	167

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91	Correlation of the Ï€-conjugation chain length and the property and photovoltaic performance of benzo[1,2-b:4,5-bâ€²]dithiophene-cored A-Ï€-D-Ï€-A type molecules. Solar Energy Materials and Solar Cells, 2016, 157, 831-843.	3.0	7
92	Printed Carbon Nanotube Electronics and Sensor Systems. Advanced Materials, 2016, 28, 4397-4414.	11.1	369
93	General Thermal Texturization Process of MoS₂ for Efficient Electrocatalytic Hydrogen Evolution Reaction. Nano Letters, 2016, 16, 4047-4053.	4.5	106
94	Printed thin film transistors and CMOS inverters based on semiconducting carbon nanotube ink purified by a nonlinear conjugated copolymer. Nanoscale, 2016, 8, 4588-4598.	2.8	44
95	Fully integrated wearable sensor arrays for multiplexed in situ perspiration analysis. Nature, 2016, 529, 509-514.	13.7	3,508
96	Diagnostic accuracy of sub-mSv prospective ECG-triggering cardiac CT in young infant with complex congenital heart disease. International Journal of Cardiovascular Imaging, 2016, 32, 991-998.	0.7	25
97	Highly Efficient Light-Driven TiO₂â€"Au Janus Micromotors. ACS Nano, 2016, 10, 839-844.	7.3	392
98	3Dâ€Printed Artificial Microfish. Advanced Materials, 2015, 27, 4411-4417.	11.1	251
99	Vapor-Driven Propulsion of Catalytic Micromotors. Scientific Reports, 2015, 5, 13226.	1.6	40
100	Cellâ€Membraneâ€Coated Synthetic Nanomotors for Effective Biodetoxification. Advanced Functional Materials, 2015, 25, 3881-3887.	7.8	212
101	Highly sensitive and robust peroxidase-like activity of porous nanorods of ceria and their application for breast cancer detection. Biomaterials, 2015, 59, 116-124.	5.7	212
102	Reversible Swarming and Separation of Self-Propelled Chemically Powered Nanomotors under Acoustic Fields. Journal of the American Chemical Society, 2015, 137, 2163-2166.	6.6	258
103	Artificial Micromotors in the Mouseâ€™s Stomach: A Step toward <i>in Vivo</i> Use of Synthetic Motors. ACS Nano, 2015, 9, 117-123.	7.3	435
104	Microengine-assisted electrochemical measurements at printable sensor strips. Chemical Communications, 2015, 51, 8668-8671.	2.2	52
105	Motion-based threat detection using microrods: experiments and numerical simulations. Nanoscale, 2015, 7, 7833-7840.	2.8	26
106	Self-Propelled Activated Carbon Janus Micromotors for Efficient Water Purification. Small, 2015, 11, 499-506.	5.2	259
107	Downregulation of long noncoding RNA ZMAT1 transcript variant 2 predicts a poor prognosis in patients with gastric cancer. International Journal of Clinical and Experimental Pathology, 2015, 8, 5556-62.	0.5	9
108	Water-Driven Micromotors for Rapid Photocatalytic Degradation of Biological and Chemical Warfare Agents. ACS Nano, 2014, 8, 11118-11125.	7.3	316

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109	Turning Erythrocytes into Functional Micromotors. ACS Nano, 2014, 8, 12041-12048.	7.3	247
110	The Environmental Impact of Micro/Nanomachines: A Review. ACS Nano, 2014, 8, 3170-3180.	7.3	490
111	Bioinspired Helical Microswimmers Based on Vascular Plants. Nano Letters, 2014, 14, 305-310.	4.5	315
112	Fully Loaded Micromotors for Combinatorial Delivery and Autonomous Release of Cargoes. Small, 2014, 10, 2830-2833.	5.2	81
113	Bubble-Propelled Micromotors for Enhanced Transport of Passive Tracers. Langmuir, 2014, 30, 5082-5087.	1.6	136
114	Catalytic Iridium-Based Janus Micromotors Powered by Ultralow Levels of Chemical Fuels. Journal of the American Chemical Society, 2014, 136, 2276-2279.	6.6	300
115	Nanomotor lithography. Nature Communications, 2014, 5, 5026.	5.8	141
116	Synthetic micro/nanomotors in drug delivery. Nanoscale, 2014, 6, 10486-10494.	2.8	367
117	Ultrasound-Modulated Bubble Propulsion of Chemically Powered Microengines. Journal of the American Chemical Society, 2014, 136, 8552-8555.	6.6	177
118	Template electrosynthesis of tailored-made helical nanoswimmers. Nanoscale, 2014, 6, 9415-9420.	2.8	138
119	Self-propelled chemically-powered plant-tissue biomotors. Chemical Communications, 2013, 49, 7307.	2.2	23
120	Molecularly Imprinted Polymer-Based Catalytic Micromotors for Selective Protein Transport. Journal of the American Chemical Society, 2013, 135, 5336-5339.	6.6	194
121	Functionalized Ultrasound-Propelled Magnetically Guided Nanomotors: Toward Practical Biomedical Applications. ACS Nano, 2013, 7, 9232-9240.	7.3	386
122	Toward inÂvivo detection of hydrogen peroxide with ultrasound molecular imaging. Biomaterials, 2013, 34, 8918-8924.	5.7	93
123	Efficient bubble propulsion of polymer-based microengines in real-life environments. Nanoscale, 2013, 5, 8909.	2.8	54
124	Artificial Enzyme-Powered Microfish for Water-Quality Testing. ACS Nano, 2013, 7, 818-824.	7.3	226
125	Organized Self-Assembly of Janus Micromotors with Hydrophobic Hemispheres. Journal of the American Chemical Society, 2013, 135, 998-1001.	6.6	189
126	Micromotor-based lab-on-chip immunoassays. Nanoscale, 2013, 5, 1325-1331.	2.8	146

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127	Nanomotor-based biocatalytic patterning of helical metal microstructures. Nanoscale, 2013, 5, 1310-1314.	2.8	33
128	Multiâ€Fuel Driven Janus Micromotors. Small, 2013, 9, 467-471.	5.2	184
129	Dryâ€Released Nanotubes and Nanoengines by Particleâ€Assisted Rolling. Advanced Materials, 2013, 25, 3715-3721.	11.1	80
130	Seawater-driven magnesium based Janus micromotors for environmental remediation. Nanoscale, 2013, 5, 4696.	2.8	333
131	Robust facial feature localization with probabilistic constrained local models. , 2012, , .		0
132	Self-Propelled Carbohydrate-Sensitive Microtransporters with Built-In Boronic Acid Recognition for Isolating Sugars and Cells. Journal of the American Chemical Society, 2012, 134, 15217-15220.	6.6	125
133	Superhydrophobic Alkanethiol-Coated Microsubmarines for Effective Removal of Oil. ACS Nano, 2012, 6, 4445-4451.	7.3	371
134	Nano/Microscale Motors: Biomedical Opportunities and Challenges. ACS Nano, 2012, 6, 5745-5751.	7.3	565
135	Water-Driven Micromotors. ACS Nano, 2012, 6, 8432-8438.	7.3	326
136	Bacterial Isolation by Lectin-Modified Microengines. Nano Letters, 2012, 12, 396-401.	4.5	300
137	Polymer-based tubular microbots: role of composition and preparation. Nanoscale, 2012, 4, 2447.	2.8	150
138	A novel hierarchical decomposition model for facial caricature synthesis. , 2012, , .		0
139	Cargoâ€Towing Fuelâ€Free Magnetic Nanoswimmers for Targeted Drug Delivery. Small, 2012, 8, 460-467.	5.2	393
140	Catalytically propelled microâ€/nanomotors: how fast can they move?. Chemical Record, 2012, 12, 224-231.	2.9	100
141	Hydrogen-Bubble-Propelled Zinc-Based Microrockets in Strongly Acidic Media. Journal of the American Chemical Society, 2012, 134, 897-900.	6.6	351
142	Dynamic Isolation and Unloading of Target Proteins by Aptamer-Modified Microtransporters. Analytical Chemistry, 2011, 83, 7962-7969.	3.2	122
143	High-speed propulsion of flexible nanowire motors: Theory and experiments. Soft Matter, 2011, 7, 8169.	1.2	195
144	Highly Efficient Catalytic Microengines: Template Electrosynthesis of Polyaniline/Platinum Microtubes. Journal of the American Chemical Society, 2011, 133, 11862-11864.	6.6	492

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145	Over-exposure image correction with automatic texture synthesis. , 2011, , .		4
146	Direct laser writing of micro-supercapacitors on hydrated graphite oxide films. Nature Nanotechnology, 2011, 6, 496-500.	15.6	1,322
147	Hybrid Nanomotor: A Catalytically/Magnetically Powered Adaptive Nanowire Swimmer. Small, 2011, 7, 2047-2051.	5.2	132
148	Simplified Costâ€Effective Preparation of Highâ€Performance Agâ€"Pt Nanowire Motors. ChemPhysChem, 2010, 11, 2802-2805.	1.0	39
149	Magnetically Powered Flexible Metal Nanowire Motors. Journal of the American Chemical Society, 2010, 132, 14403-14405.	6.6	362
150	Influence of the location of electron donating 3,4-ethylenedioxythiophene (EDOT) moiety in the A-Ï€-D-Ï€-A type conjugated molecules on the optoelectronic properties and photovoltaic performances. Organic Materials, 0, 03, .	1.0	0