

Takafumi Uemura

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97
papers

3,173
citations

31
h-index

54
g-index

105
ext. papers

3,491
ext. citations

7.8
avg, IF

4.93
L-index

#	Paper	IF	Citations
97	Patternable solution-crystallized organic transistors with high charge carrier mobility. <i>Advanced Materials</i> , 2011 , 23, 1626-9	24	303
96	Very High Mobility in Solution-Processed Organic Thin-Film Transistors of Highly Ordered [1]Benzothieno[3,2-b]benzothiophene Derivatives. <i>Applied Physics Express</i> , 2009 , 2, 111501	2.4	238
95	High-performance solution-processable N-shaped organic semiconducting materials with stabilized crystal phase. <i>Advanced Materials</i> , 2014 , 26, 4546-51	24	164
94	On the Extraction of Charge Carrier Mobility in High-Mobility Organic Transistors. <i>Advanced Materials</i> , 2016 , 28, 151-5	24	163
93	V-shaped organic semiconductors with solution processability, high mobility, and high thermal durability. <i>Advanced Materials</i> , 2013 , 25, 6392-7	24	162
92	Solution-crystallized organic field-effect transistors with charge-acceptor layers: high-mobility and low-threshold-voltage operation in air. <i>Advanced Materials</i> , 2011 , 23, 3309-14	24	143
91	Enhanced fluorescence by surface plasmon coupling of Au nanoparticles in an organic electroluminescence diode. <i>Applied Physics Letters</i> , 2010 , 96, 043307	3.4	136
90	High electron mobility in air for N,N'-1H,1H-perfluorobutyldicyanoperylene carboxydi-imide solution-crystallized thin-film transistors on hydrophobic surfaces. <i>Advanced Materials</i> , 2011 , 23, 3681-5 ²⁴	24	112
89	Hall-effect measurements probing the degree of charge-carrier delocalization in solution-processed crystalline molecular semiconductors. <i>Physical Review Letters</i> , 2011 , 107, 066601	7.4	94
88	Inch-Size Solution-Processed Single-Crystalline Films of High-Mobility Organic Semiconductors. <i>Applied Physics Express</i> , 2013 , 6, 076503	2.4	86
87	An ultraflexible organic differential amplifier for recording electrocardiograms. <i>Nature Electronics</i> , 2019 , 2, 351-360	28.4	62
86	Band-like transport in solution-crystallized organic transistors. <i>Current Applied Physics</i> , 2012 , 12, S87-S91 ^{2.6}	12.6	59
85	Boron-Stabilized Planar Neutral Radicals with Well-Balanced Ambipolar Charge-Transport Properties. <i>Journal of the American Chemical Society</i> , 2017 , 139, 14336-14339	16.4	56
84	High-speed flexible organic field-effect transistors with a 3D structure. <i>Advanced Materials</i> , 2011 , 23, 3047-51	24	53
83	Charge transport and Hall effect in rubrene single-crystal transistors under high pressure. <i>Physical Review B</i> , 2011 , 84,	3.3	51
82	Free-electron-like Hall effect in high-mobility organic thin-film transistors. <i>Physical Review B</i> , 2010 , 81,	3.3	50
81	Electronic functionalization of solid-to-liquid interfaces between organic semiconductors and ionic liquids: Realization of very high performance organic single-crystal transistors. <i>Applied Physics Letters</i> , 2008 , 93, 263305	3.4	50

80	Local-plasmon-enhanced up-conversion fluorescence from copper phthalocyanine. <i>Chemical Physics Letters</i> , 2007 , 448, 232-236	2.5	47
79	Temperature dependence of the Hall effect in pentacene field-effect transistors: Possibility of charge decoherence induced by molecular fluctuations. <i>Physical Review B</i> , 2012 , 85,	3.3	46
78	Low-voltage operation of n-type organic field-effect transistors with ionic liquid. <i>Applied Physics Letters</i> , 2009 , 95, 103301	3.4	46
77	Electrical properties of individual ZnO nanowires. <i>Nanotechnology</i> , 2009 , 20, 155203	3.4	44
76	Dinaphtho[1,2-b:2',1'-d]chalcogenophenes: Comprehensive Investigation of the Effect of the Chalcogen Atoms in the Phenacene-Type π -Electronic Cores. <i>Chemistry of Materials</i> , 2013 , 25, 3952-3956	9.6	43
75	Imperceptible magnetic sensor matrix system integrated with organic driver and amplifier circuits. <i>Science Advances</i> , 2020 , 6, eaay6094	14.3	39
74	Study of contact resistance of high-mobility organic transistors through comparisons. <i>Organic Electronics</i> , 2013 , 14, 2590-2595	3.5	39
73	High-Mobility Organic Transistors with Wet-Etch-Patterned Top Electrodes: A Novel Patterning Method for Fine-Pitch Integration of Organic Devices. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1300124	4.6	38
72	Flexible three-dimensional organic field-effect transistors fabricated by an imprinting technique. <i>Advanced Materials</i> , 2012 , 24, 5212-6, 5276	24	34
71	Wireless Monitoring Using a Stretchable and Transparent Sensor Sheet Containing Metal Nanowires. <i>Advanced Materials</i> , 2020 , 32, e1902684	24	34
70	Structural investigation of ionic liquid/rubrene single crystal interfaces by using frequency-modulation atomic force microscopy. <i>Chemical Communications</i> , 2013 , 49, 10596-8	5.8	32
69	High-speed organic single-crystal transistors gated with short-channel air gaps: Efficient hole and electron injection in organic semiconductor crystals. <i>Organic Electronics</i> , 2013 , 14, 1656-1662	3.5	31
68	Optical pump-probe spectroscopy of photocarriers in rubrene single crystals. <i>Physical Review B</i> , 2011 , 83,	3.3	31
67	High-performance organic transistors with high-k dielectrics: A comparative study on solution-processed single crystals and vacuum-deposited polycrystalline films of 2,9-didecyl-dinaphtho[2,3-b:2',3'-f]thieno[3,2-b]thiophene. <i>Applied Physics Letters</i> , 2012 , 101, 223304	3.4	31
66	Air-stable n-channel single-crystal transistors with negligible threshold gate voltage. <i>Applied Physics Letters</i> , 2009 , 94, 053305	3.4	30
65	Long-Term Implantable, Flexible, and Transparent Neural Interface Based on Ag/Au Core-Shell Nanowires. <i>Advanced Healthcare Materials</i> , 2019 , 8, e1900130	10.1	29
64	Split-gate organic field-effect transistors for high-speed operation. <i>Advanced Materials</i> , 2014 , 26, 2983-824		29
63	Imperceptible energy harvesting device and biomedical sensor based on ultraflexible ferroelectric transducers and organic diodes. <i>Nature Communications</i> , 2021 , 12, 2399	17.4	29

62	Function point measurement tool for UML design specification		27
61	Comprehensive Evaluation of Electron Mobility for a Trifluoroacetyl-Terminated Electronegative Conjugated Oligomer. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 17189-17193	3.8	25
60	Charge-transfer induced surface conductivity for a copper based inorganic-organic hybrid. <i>Applied Physics Letters</i> , 2009 , 95, 173104	3.4	24
59	Monolithic complementary inverters based on organic single crystals. <i>Advanced Materials</i> , 2010 , 22, 3938-3941	2.4	24
58	High-power and high-speed organic three-dimensional transistors with submicrometer channels. <i>Applied Physics Letters</i> , 2010 , 97, 013301	3.4	23
57	Ultraflexible and ultrathin polymeric gate insulator for 2 V organic transistor circuits. <i>Applied Physics Express</i> , 2016 , 9, 061602	2.4	23
56	Relaxation dynamics of photoexcited excitons in rubrene single crystals using femtosecond absorption spectroscopy. <i>Physical Review Letters</i> , 2012 , 109, 097403	7.4	20
55	Single-crystal Field-effect Transistors with a Furan-containing Organic Semiconductor Having a Twisted π -Electronic System. <i>Chemistry Letters</i> , 2013 , 42, 654-656	1.7	19
54	Electroconductive π -Junction Au Nanoparticles. <i>Bulletin of the Chemical Society of Japan</i> , 2012 , 85, 957-961	3.1	18
53	Reduced contact resistances in organic transistors with secondary gates on source and drain electrodes. <i>Applied Physics Letters</i> , 2009 , 95, 113308	3.4	17
52	The emergence of charge coherence in soft molecular organic semiconductors via the suppression of thermal fluctuations. <i>NPG Asia Materials</i> , 2016 , 8, e252-e252	10.3	17
51	Molecularly clean ionic liquid/rubrene single-crystal interfaces revealed by frequency modulation atomic force microscopy. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 6794-800	3.6	16
50	Carrier dynamics of rubrene single-crystals revealed by transient broadband terahertz spectroscopy. <i>Applied Physics Letters</i> , 2014 , 105, 143302	3.4	15
49	Clean surface processing of rubrene single crystal immersed in ionic liquid by using frequency modulation atomic force microscopy. <i>Applied Physics Letters</i> , 2014 , 104, 263102	3.4	15
48	Tunneling-current-induced light emission from individual carbon nanotubes. <i>Surface Science</i> , 2006 , 600, L15-L19	1.8	15
47	Correlation between thermal fluctuation effects and phase coherence factor in carrier transport of single-crystal organic semiconductors. <i>Applied Physics Letters</i> , 2015 , 106, 143302	3.4	13
46	Enhancement of the Exciton Coherence Size in Organic Semiconductor by Alkyl Chain Substitution. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 7941-7948	3.8	13
45	Fine printing method of silver nanowire electrodes with alignment and accumulation. <i>Nanotechnology</i> , 2019 , 30, 37LT03	3.4	12

44	Highly-ordered Triptycene Modifier Layer Based on Blade Coating for Ultraflexible Organic Transistors. <i>Scientific Reports</i> , 2019 , 9, 9200	4.9	12
43	Ultrafast exciton dynamics in dinaphtho[2,3-b:2'3'-b']thieno[3,2-b]-thiophene thin films. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 7501-12	3.6	12
42	Syntheses and Thermal Properties of New Liquid Crystalline Materials Involving Tropolone. <i>Molecular Crystals and Liquid Crystals</i> , 1983 , 95, 287-297		12
41	Gradual improvements of charge carrier mobility at ionic liquid/rubrene single crystal interfaces. <i>Applied Physics Letters</i> , 2016 , 108, 083113	3.4	12
40	Printable Transparent Microelectrodes toward Mechanically and Visually Imperceptible Electronics. <i>Advanced Intelligent Systems</i> , 2020 , 2, 2000093	6	11
39	Charge modulation infrared spectroscopy of rubrene single-crystal field-effect transistors. <i>Applied Physics Letters</i> , 2013 , 102, 093301	3.4	10
38	Implantable wireless 64-channel system with flexible ECoG electrode and optogenetics probe 2016		10
37	Design of ultraflexible organic differential amplifier circuits for wearable sensor technologies 2018 ,		10
36	Orientation analysis of pentacene molecules in organic field-effect transistor devices using polarization-dependent Raman spectroscopy. <i>Scientific Reports</i> , 2019 , 9, 15149	4.9	9
35	Enhanced electronic-transport modulation in single-crystalline VO nanowire-based solid-state field-effect transistors. <i>Scientific Reports</i> , 2017 , 7, 17215	4.9	9
34	Microscopic hole-transfer efficiency in organic thin-film transistors studied with charge-modulation spectroscopy. <i>Physical Review B</i> , 2015 , 91,	3.3	9
33	Wireless EEG patch sensor on forehead using on-demand stretchable electrode sheet and electrode-tissue impedance scanner. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2014 , 2014, 4221-4224	0.9	7
32	High-performance solution-processed organic transistors with electroless-plated electrodes. <i>Organic Electronics</i> , 2013 , 14, 2144-2147	3.5	7
31	Very Low-Voltage Operation of Ionic Liquid-Gated n-Type Organic Field-Effect Transistors. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 01AB13	1.4	7
30	Spatially resolved detection of plasmon-enhanced fluorescence using scanning tunneling microscopy. <i>Surface and Interface Analysis</i> , 2008 , 40, 1050-1053	1.5	7
29	Tunneling-Current-Induced Light Emission from Copper Phthalocyanine Thin Films. <i>E-Journal of Surface Science and Nanotechnology</i> , 2006 , 4, 559-562	0.7	6
28	Ultralow-Noise Organic Transistors Based on Polymeric Gate Dielectrics with Self-Assembled Modifiers. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 41561-41569	9.5	5
27	Flexible neural interfaces for brain implantsThe pursuit of thinness and high density. <i>Flexible and Printed Electronics</i> , 2020 , 5, 043002	3.1	5

26	Raman Spectroscopic Studies of Dinaphthothienothiophene (DNNT). <i>Materials</i> , 2019 , 12,	3.5	4
25	Rapid improvements in charge carrier mobility at ionic liquid/pentacene single crystal interfaces by self-cleaning. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 6131-6135	3.6	4
24	Growth Of Organic Semiconductor Thin Films with Multi-Micron Domain Size and Fabrication of Organic Transistors Using a Stencil Nanosieve. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 23314-23318	3.5	4
23	Mobility enhancement of DNNT and BTBT derivative organic thin-film transistors by triptycene molecule modification. <i>Organic Electronics</i> , 2021 , 96, 106219	3.5	4
22	Materials and devices with applications in high-end organic transistors. <i>Thin Solid Films</i> , 2014 , 554, 19-26	2.2	3
21	Flexible organic TFT bio-signal amplifier using reliable chip component assembly process with conductive adhesive. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2017 , 2017, 1591-1594	0.9	3
20	Flexible sensor sheet for real-time pressure monitoring in artificial knee joint during total knee arthroplasty. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2017 , 2017, 1591-1594	0.9	3
19	Flexible electronics for bio-signal monitoring in implantable applications. <i>IEICE Electronics Express</i> , 2017 , 14, 20172003-20172003	0.5	3
18	High-power three-dimensional polymer FETs. <i>Current Applied Physics</i> , 2012 , 12, S92-S95	2.6	3
17	Investigation of Hole Transporting Properties in Thin-Film and Single-Crystal Organic Field-Effect Transistor Based on Dinaphtho[2,1-b:1'-b']thiophene. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 05DC10	1.4	3
16	Heterogeneous Functional Dielectric Patterns for Charge-Carrier Modulation in Ultraflexible Organic Integrated Circuits. <i>Advanced Materials</i> , 2021 , 33, e2104446	24	3
15	Probing inter-molecular interactions of dinaphthothienothiophene (DNNT) molecules in a transistor device using low-frequency Raman spectroscopy. <i>Applied Physics Express</i> , 2020 , 13, 022010	2.4	2
14	Coherent Phonon Dynamics in Singlet Fission of Rubrene Single Crystal. <i>Springer Proceedings in Physics</i> , 2015 , 218-221	0.2	2
13	Hall Effect of Solution-crystallized and Vapor-deposited 2,7-Dioctylbenzothieno[3,2-b]Benzothiophene Field-effect Transistors. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1270, 1		1
12	Coherent phonon dynamics in singlet fission of rubrene single crystal 2014 ,		1
11	Three-Dimensional Organic Field-Effect Transistors Using Solution-Processed Thin Films of Benzothieno-Benzothiophene Derivatives. <i>Molecular Crystals and Liquid Crystals</i> , 2011 , 539, 58/[398]-62/[402]	0.5	0
10	Retrieval of Electronic Spectra of Charge Carriers in Organic Field-Effect Transistors from Charge Modulation Reflectance Spectra Distorted by Optical Interference. <i>Japanese Journal of Applied Physics</i> , 2013 , 52, 062401	1.4	0
9	Non-contact Laser Printing of Ag Nanowire-based Electrode with Photodegradable Polymers. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2019 , 32, 429-434	0.7	0

- 8 Evaluating intrinsic mobility from transient terahertz conductivity spectra of microcrystal samples of organic molecular semiconductors. *Applied Physics Letters*, **2019**, 115, 143301 3-4
- 7 3D Organic Field-Effect Transistors: Flexible Three-Dimensional Organic Field-Effect Transistors Fabricated by an Imprinting Technique (Adv. Mater. 38/2012). *Advanced Materials*, **2012**, 24, 5276-5276 2-4
- 6 Organic Semiconductors: V-Shaped Organic Semiconductors With Solution Processability, High Mobility, and High Thermal Durability (Adv. Mater. 44/2013). *Advanced Materials*, **2013**, 25, 6306-6306 2-4
- 5 Organic Field-Effect Transistors: High Electron Mobility in Air for N,N'-1H,1H-Perfluorobutyldicyanoperylene Carboxydi-imide Solution-Crystallized Thin-Film Transistors on Hydrophobic Surfaces (Adv. Mater. 32/2011). *Advanced Materials*, **2011**, 23, 3680-3680 2-4
- 4 High-power Organic Field-effect Transistors Using a Three-dimensional Structure. *Materials Research Society Symposia Proceedings*, **2010**, 1270, 1
- 3 Air-Stable n-Channel Single-Crystal Field-Effect Transistors. *Japanese Journal of Applied Physics*, **2010**, 49, 01AB05 1-4
- 2 Heterogeneous Functional Dielectric Patterns for Charge-Carrier Modulation in Ultraflexible Organic Integrated Circuits (Adv. Mater. 45/2021). *Advanced Materials*, **2021**, 33, 2170358 2-4
- 1 Interfacial Structural Investigations of Electric Double Layer Transistors Using Ionic Liquid: Relation between Microscopic Structures and Device Performances. *Hyomen Kagaku*, **2017**, 38, 419-424