Lay-Lay Chua

List of Publications by Year
in descending order

49 papers	4,952 citations	257101 24 h-index	197535 49 g-index
49 all docs	49 docs citations	49 times ranked	7321 citing authors

#	Article	IF	Citations
1	General observation of n-type field-effect behaviour in organic semiconductors. Nature, 2005, 434, 194-199.	13.7	2,172
2	Giant broadband nonlinear optical absorption response in dispersed graphene single sheets. Nature Photonics, 2011, 5, 554-560.	15.6	425
3	Bandâ€like Transport in Surfaceâ€Functionalized Highly Solutionâ€Processable Graphene Nanosheets. Advanced Materials, 2008, 20, 3440-3446.	11.1	299
4	A general method for transferring graphene onto soft surfaces. Nature Nanotechnology, 2013, 8, 356-362.	15.6	255
5	High-performance polymer semiconducting heterostructure devices by nitrene-mediated photocrosslinking of alkyl side chains. Nature Materials, 2010, 9, 152-158.	13.3	241
6	High-stability ultrathin spin-on benzocyclobutene gate dielectric for polymer field-effect transistors. Applied Physics Letters, 2004, 84, 3400-3402.	1.5	213
7	Doped polymer semiconductors with ultrahigh and ultralow work functions for ohmic contacts. Nature, 2016, 539, 536-540.	13.7	186
8	Controlled insulator-to-metal transformation in printable polymer composites with nanometal clusters. Nature Materials, 2007, 6, 149-155.	13.3	150
9	High internal quantum efficiency in fullerene solar cells based on crosslinked polymer donor networks. Nature Communications, 2012, 3, 1321.	5.8	83
10	Madelung and Hubbard interactions in polaron band model of doped organic semiconductors. Nature Communications, 2016, 7, 11948.	5.8	66
11	Hydrophilic Sparse Ionic Monolayerâ€Protected Metal Nanoparticles: Highly Concentrated Nanoâ€Au and Nanoâ€Ag â€œInksâ€•that can be Sintered to Nearâ€Bulk Conductivity at 150â€‰Â°C. Advanced Functional Materials, 2010, 20, 296-303.	7.8	59
12	Suppressing Recombination in Polymer Photovoltaic Devices via Energyâ€Level Cascades. Advanced Materials, 2013, 25, 4131-4138.	11.1	57
13	Large Damage Threshold and Small Electron Escape Depth in X-ray Absorption Spectroscopy of a Conjugated Polymer Thin Film. Langmuir, 2006, 22, 8587-8594.	1.6	53
14	Furan substituted diketopyrrolopyrrole and thienylenevinylene based low band gap copolymer for high mobility organic thin film transistors. Journal of Materials Chemistry, 2012, 22, 17284.	6.7	52
15	Multivalent anions as universal latent electron donors. Nature, 2019, 573, 519-525.	13.7	50
16	Role of Borderline Solvents to Induce Pronounced Extended-Chain Lamellar Order in Ï€-Stackable Polymers. Macromolecules, 2011, 44, 9692-9702.	2.2	45
17	Polyfluorene-based light-emitting diodes with an azide photocross-linked poly(3,4-ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 103308.	1.5	44
18	Interplay of Processing, Morphological Order, and Charge-Carrier Mobility in Polythiophene Thin Films Deposited by Different Methods: Comparison of Spin-Cast, Drop-Cast, and Inkjet-Printed Films. Langmuir, 2010, 26, 15494-15507.	1.6	34

#	Article	IF	Citations
19	Role ofÎ´-Hole-Doped Interfaces at Ohmic Contacts to Organic Semiconductors. Physical Review Letters, 2009, 103, 036601.	2.9	32
20	Electromigration of the conducting polymer in organic semiconductor devices and its stabilization by cross-linking. Applied Physics Letters, 2007, 91, .	1.5	31
21	Direct Evidence for the Role of the Madelung Potential in Determining the Work Function of Doped Organic Semiconductors. Physical Review Letters, 2009, 102, 096602.	2.9	31
22	Organic double-gate field-effect transistors: Logic-AND operation. Applied Physics Letters, 2005, 87, 253512.	1.5	30
23	Low frequency noise analysis on organic thin film transistors. Journal of Applied Physics, 2008, 104, .	1.1	27
24	Interface Doping for Ohmic Organic Semiconductor Contacts Using Selfâ€Aligned Polyelectrolyte Counterion Monolayer. Advanced Functional Materials, 2017, 27, 1606291.	7.8	26
25	Deoxidation of graphene oxide nanosheets to extended graphenites by â€œunzippingâ€•elimination. Journal of Chemical Physics, 2008, 129, 114702.	1.2	23
26	A transition solvent strategy to print polymer:fullerene films using halogen-free solvents for solar cell applications. Organic Electronics, 2014, 15, 449-460.	1.4	23
27	Effective work functions for the evaporated metal/organic semiconductor contacts from in-situ diode flatband potential measurements. Applied Physics Letters, 2012, 101, 013501.	1.5	22
28	Solvent effects and multiple aggregate states in high-mobility organic field-effect transistors based on poly(bithiophene-alt-thienothiophene). Applied Physics Letters, 2008, 93, 162103.	1.5	21
29	Improving organic photovoltaic cells by forcing electrode work function well beyond onset of Ohmic transition. Nature Communications, 2021, 12, 2250.	5.8	20
30	Polarization effects on energy-level alignment at the interfaces of polymer organic semiconductor films. Applied Physics Letters, 2012, 101, 053304.	1.5	18
31	Influence of Graphite Source on Chemical Oxidative Reactivity. Chemistry of Materials, 2013, 25, 2944-2949.	3.2	18
32	Determination of the interface Î´-hole density in a blue-emitting organic semiconductor diode by electromodulated absorption spectroscopy. Applied Physics Letters, 2010, 97, .	1.5	17
33	Solution-processed conjugated polymer organic p-i-n light-emitting diodes with high built-in potential by solution- and solid-state doping. Applied Physics Letters, 2009, 95, .	1.5	14
34	Role of Linker Functionality in Polymers Exhibiting Mainâ€Chain Thermally Activated Delayed Fluorescence. Advanced Science, 2022, 9, e2200056.	5.6	13
35	Synthesis, characterization and comparative OFET behaviour of indenofluoreneâ€“bithiophene and terthiophene alternating copolymers. Synthetic Metals, 2010, 160, 468-474.	2.1	10
36	Surface Doping of Organic Singleâ€Crystal Semiconductors to Produce Strainâ€Sensitive Conductive Nanosheets. Advanced Science, 2021, 8, 2002065.	5.6	10

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37	Impact of self-assembled monolayer on low frequency noise of organic thin film transistors. Applied Physics Letters, 2008, 93, .	1.5	9
38	Characterization of ohmic contacts in polymer organic field-effect transistors. Organic Electronics, 2016, 37, 491-497.	1.4	9
39	Nearly 100% Photocrosslinking Efficiency in Ultrahigh Work Function Hole-Doped Conjugated Polymers Using Bis(fluorophenyl azide) Additives. ACS Applied Materials & Interfaces, 2019, 11, 48103-48112.	4.0	9
40	Bulk ion-clustering and surface ion-layering effects on work function of self-compensated charged-doped polymer semiconductors. Materials Horizons, 2020, 7, 1073-1082.	6.4	8
41	Overcoming the water oxidative limit for ultra-high-workfunction hole-doped polymers. Nature Communications, 2021, 12, 3345.	5.8	8
42	Spectator cation size effect on the work function and stability of self-compensated hole-doped polymers. Journal of Materials Chemistry C, 2020, 8, 124-131.	2.7	7
43	Robust reproducible large-area molecular rectifier junctions. Applied Physics Letters, 2008, 92, .	1.5	6
44	General bis(fluorophenyl azide) photo-crosslinkers for conjugated and non-conjugated polyelectrolytes. Journal of Materials Chemistry C, 2020, 8, 253-261.	2.7	6
45	Role of Singlet and Triplet Excitons on the Electrical Stability of Polymer Lightâ€Emitting Diodes. Advanced Electronic Materials, 2020, 6, 2000367.	2.6	5
46	Double-type-I charge-injection heterostructure for quantum-dot light-emitting diodes. Materials Horizons, 2022, 9, 2147-2159.	6.4	5
47	Biasâ€Induced Electrochemical Electron Doping of Organic Semiconductor Contacts. Advanced Materials Interfaces, 2019, 6, 1900607.	1.9	4
48	Efficient surfactant-free and chemical reductant-free solvothermal deoxidation of solution-processable sub-stoichiometric graphene oxide. Journal of Materials Chemistry C, 2013, 1, 7246.	2.7	3
49	Solution-processed 2-dimensional hole-doped ionic graphene compounds. Materials Horizons, 2017, 4, 456-463.	6.4	3