Ivo A HÃ¼mmelgen

List of Publications by Year
in descending order

106 papers	1,880 citations	304743 22 h-index	345221 36 g-index
111 all docs	111 docs citations	111 times ranked	1949 citing authors

#	Article	IF	Citations
1	Giant Seebeck coefficient in thin sulfonated polyaniline film based devices. Organic Electronics, 2019, 67, 153-158.	2.6	2
2	GaxSe10-x based solar cells: Some alternatives for the improvement in their performance parameters. Solar Energy Materials and Solar Cells, 2019, 193, 141-148.	6.2	7
3	Concomitant in Situ FTIR and Impedance Measurements To Address the 2-Methylcyclopentanone Vapor-Sensing Mechanism in MnO₂â€“Polymer Nanocomposites. ACS Omega, 2019, 4, 8324-8333.	3.5	19
4	Nitrogen-doped hollow carbon spheres as chemical vapour sensors. New Journal of Chemistry, 2019, 43, 8418-8427.	2.8	23
5	Poly(vinyl alcohol) gate dielectric in organic field-effect transistors. Journal of Materials Science: Materials in Electronics, 2019, 30, 5299-5326.	2.2	23
6	Understanding the sensing mechanism of carbon nanoparticles: MnO2â€“PVP composites sensors using in situ FTIRâ€”online LCR meter in the detection of ethanol and methanol vapor. Journal of Materials Science: Materials in Electronics, 2019, 30, 3552-3562.	2.2	8
7	Experimental and modeling study of low-voltage field-effect transistors fabricated with molecularly aligned copolymer floating films. Flexible and Printed Electronics, 2018, 3, 015006.	2.7	15
8	All-organic bipolar vertical transistor with sulfonated polyaniline base energy barriers favoring recombination emitter-collector current. Organic Electronics, 2018, 54, 114-118.	2.6	2
9	Influence of an interfacial cesium oxide thin layer in the performance and internal dynamic processes of GaSe9 solar cells. Solar Energy Materials and Solar Cells, 2017, 171, 1-7.	6.2	3
10	Polymer-dielectric molecular interactions in defect-free poly(3-hexylthiophene): dependence and consequences of regioregularity on transistor charge transport properties. Semiconductor Science and Technology, 2017, 32, 084003.	2.0	10
11	Hollow carbon spheres and a hollow carbon sphere/polyvinylpyrrolidone composite as ammonia sensors. Journal of Materials Chemistry A, 2017, 5, 2539-2549.	10.3	38
12	Ultra-high mobility in defect-free poly(3-hexylthiophene-2,5-diyl) field-effect transistors through supra-molecular alignment. Organic Electronics, 2017, 51, 94-102.	2.6	26
13	Morphological, optical and electrical properties of GaSe9 films and its application in photovoltaic devices. Journal of Materials Science: Materials in Electronics, 2017, 28, 2241-2249.	2.2	2
14	Organic electronic solid state device: electrochemistry of material preparation. Journal of Solid State Electrochemistry, 2017, 21, 1977-1985.	2.5	4
15	Fungi Active Microbial Metabolism Detection of Rhizopus sp. and Aspergillus sp. Section Nigri on Strawberry Using a Set of Chemical Sensors Based on Carbon Nanostructures. Chemosensors, 2016, 4, 19.	3.6	10
16	Poly(Vinyl Alcohol) Gate Dielectric Treated With Anionic Surfactant in C60 Fullerene-Based n-Channel Organic Field Effect Transistors. Materials Research, 2016, 19, 1201-1206.	1.3	5
17	Electrode material dependent p- or n-like thermoelectric behavior of single electrochemically synthesized poly(2,2â€²â€“bithiophene) layerâ€”application to thin film thermoelectric generator. Journal of Solid State Electrochemistry, 2016, 20, 2191-2196.	2.5	6
18	High mobility organic field-effect transistors based on defect-free regioregular poly(3-hexylthiophene-2,5-diyl). Organic Electronics, 2016, 38, 89-96.	2.6	34

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19	Colloidal InSe nanostructures: Effect of morphology on their chemical sensitivity to methanol and formaldehyde fumes. Sensors and Actuators B: Chemical, 2016, 236, 116-125.	7.8	4
20	Tristimulus analysis for sensors set with either positive or negative sensitivitiesâ€"determination of the relative concentration of an analyte in a binary mixture. Journal of Solid State Electrochemistry, 2016, 20, 1295-1301.	2.5	4
21	Improved charge carrier mobility in copper phthalocyanine based field effect transistors by insertion of a thin poorly conducting layer as gate insulator extension. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2759-2765.	1.8	5
22	An additional tool towards overcoming absence of specificity of carbon nanostructure-based electrochemical sensorsâ€"application to estriol and estradiol detection and distinction. Journal of Solid State Electrochemistry, 2015, 19, 3045-3050.	2.5	12
23	A surfactant dispersed N-doped carbon sphere-poly(vinyl alcohol) composite as relative humidity sensor. Journal of Materials Science: Materials in Electronics, 2015, 26, 4198-4201.	2.2	19
24	Copper phthalocyanine based vertical organic field effect transistor with naturally patterned tin intermediate grid electrode. Organic Electronics, 2015, 27, 155-159.	2.6	21
25	Gate dielectric surface treatments for performance improvement of poly(3-hexylthiophene-2,5-diyl) based organic field-effect transistors. , 2015, , .		3
26	Modification of the charge transport properties of the copper phthalocyanine/poly(vinyl alcohol) interface using cationic or anionic surfactant for field-effect transistor performance enhancement. Journal Physics D: Applied Physics, 2015, 48, 335104.	2.8	8
27	Performance enhancement of poly(3-hexylthiophene-2,5-diyl) based field effect transistors through surfactant treatment of the poly(vinyl alcohol) gate insulator surface. Physical Chemistry Chemical Physics, 2015, 17, 26530-26534.	2.8	14
28	Poly(vinyl alcohol) gate dielectric surface treatment with vitamin C for poly(3-hexylthiophene-2,5-diyl) based field effect transistors performance improvement. Organic Electronics, 2015, 17, 22-27.	2.6	25
29	Interfacial insertion of a poly(3,4-ethylenedioxythiophene): poly(styrenesulfonate) layer between the poly(3-hexyl thiophene) semiconductor and cross-linked poly(vinyl alcohol) insulator layer in organic field-effect transistors. Journal Physics D: Applied Physics, 2014, 47, 075102.	2.8	16
30	Hydrostatic pressure sensors based on carbon spheres dispersed in polyvinyl alcohol prepared using hexadecyltrimethylammonium bromide as surfactant and water as solvent. Materials Research Express, 2014, 1, 015605.	1.6	10
31	Carbon nanostructures in organic WORM memory devices. Journal of Materials Chemistry C, 2014, 2, 7708-7714.	5.5	11
32	All-organic vertical transistor in an analogous n-semiconductor/metal/p-semiconductor trilayer structure. Organic Electronics, 2014, 15, 738-742.	2.6	7
33	Undoped, nitrogen-doped and boron-doped multiwalled carbon nanotube/poly(vinyl alcohol) composite as active layer in simple hydrostatic pressure sensors. Journal of Materials Science: Materials in Electronics, 2013, 24, 3995-4000.	2.2	6
34	Polarized vibrational spectra of Prussian Blue films: Spectroscopic evidence of columnar growth. Vibrational Spectroscopy, 2013, 64, 58-61.	2.2	5
35	Polymer composite of poly(vinyl phenol)-reduced graphene oxide reduced by vitamin C in low energy consuming write-onceâ€"read-many times memory devices. Organic Electronics, 2013, 14, 175-181.	2.6	54
36	Tristimulus mathematical treatment application for monitoring fungi infestation evolution in melon using the electrical response of carbon nanostructure-polymer composite based sensors. Sensors and Actuators B: Chemical, 2013, 188, 378-384.	7.8	7

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37	GaN nanostructures-poly(vinyl alcohol) composite based hydrostatic pressure sensor device. Materials Chemistry and Physics, 2013, 143, 367-372.	4.0	6
38	Vertical organic field effect transistor using sulfonated polyaniline/aluminum bilayer as intermediate electrode. Journal of Materials Science: Materials in Electronics, 2013, 24, 1052-1056.	2.2	20
39	Nitrogen-doped, boron-doped and undoped multiwalled carbon nanotube/polymer composites in WORM memory devices. Nanotechnology, 2013, 24, 125203.	2.6	18
40	Performance of hybrid p-type vertical transistors with poly(N-vinylcarbazole) as emitter and the transfer mechanism of charge carriers through the base. Semiconductor Science and Technology, 2013, 28, 115001.	2.0	3
41	Study of poly(3-hexylthiophene)/cross-linked poly(vinyl alcohol) as semiconductor/insulator for application in low voltage organic field effect transistors. Journal of Applied Physics, 2013, 113, .	2.5	31
42	Functionalized Spherical Carbon Nanostructure/Poly(vinylphenol) Composites for Application in Low Power Consumption Write-Once-Read-Many Times Memories. Journal of Nanoscience and Nanotechnology, 2013, 13, 5680-5686.	0.9	4
43	Changing inter-molecular spin-orbital coupling for generating magnetic field effects in phosphorescent organic semiconductors. Applied Physics Letters, 2012, 100, 013301.	3.3	12
44	Hybrid vertical transistor based on controlled lateral channel overflow. Journal of Applied Physics, 2012, 112, 074509.	2.5	3
45	Organic low voltage rewritable memory device based on PEDOT:PSS/f-MWCNTs thin film. Organic Electronics, 2012, 13, 2582-2588.	2.6	41
46	Electronic Detection of Drechslera sp. Fungi in Charentais Melon (Cucumis melo Naudin) Using Carbon-Nanostructure-Based Sensors. Journal of Agricultural and Food Chemistry, 2012, 60, 10420-10425.	5.2	9
47	Low voltage organic field effect transistors with a poly(hexylthiophene)â€“ZnO nanoparticles composite as channel material. Physica Status Solidi - Rapid Research Letters, 2012, 6, 74-76.	2.4	10
48	A comparative study on hydrostatic pressure response of sensors based on N-doped, B-doped and undoped carbon-sphere poly (vinyl alcohol) composites. Journal of Materials Science: Materials in Electronics, 2012, 23, 1332-1337.	2.2	9
49	The OFF to ON switching time and ON state consolidation in write-once-read-many-times memory devices based on doped and undoped carbon-sphere/polymer composites. Thin Solid Films, 2012, 520, 4427-4431.	1.8	19
50	Low-Voltage Poly(3-Hexylthiophene)/Poly(Vinyl Alcohol) Field-Effect Transistor and Inverter. IEEE Transactions on Electron Devices, 2012, 59, 1529-1533.	3.0	48
51	Composites of Polyvinyl Alcohol and Carbon (Coils, Undoped and Nitrogen Doped Multiwalled) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Nanotechnology, 2011, 11, 10211-10218.	0.9	20
52	AC-Conductance and Capacitance Measurements for Ethanol Vapor Detection Using Carbon Nanotube-Polyvinyl Alcohol Composite Based Devices. Journal of Nanoscience and Nanotechnology, 2011, 11, 2384-2388.	0.9	10
53	Low voltage vertical organic field-effect transistor with polyvinyl alcohol as gate insulator. Journal of Applied Physics, 2011, 110, .	2.5	28
54	Hybrid Vertical Architecture Transistor with 2,6-Diphenylindenofluorene Based Emitter and Base Permeability Controlled by Polystyrene Spheres Lithography. Journal of Nanoscience and Nanotechnology, 2010, 10, 2389-2393.	0.9	3

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55	Electrical and optical properties of poly(2-dodecanoylsulfanyl-p-phenylenevnylene) and its application in electroluminescent devices. Journal of Materials Science: Materials in Electronics, 2010, 21, 1235-1239.	2.2	8
56	Simple write-once-read-many-times memory device based on a carbon sphere-poly(vinylphenol) composite. Organic Electronics, 2010, 11, 1858-1863.	2.6	27
57	Hydrostatic pressure sensor based on carbon sphere â€“ polyvinyl alcohol composites. Organic Electronics, 2010, 11, 1736-1739.	2.6	22
58	Very high magnetocurrent in tris-(8-hydroxyquinoline) aluminum-based bipolar charge injection devices. Applied Physics Letters, 2009, 94, 253305.	3.3	22
59	Hybrid vertical architecture transistor with magnetic-field-dependent current amplification as organic magnetocurrent investigation tool. Journal of Applied Physics, 2009, 106, 074505.	2.5	6
60	Sulfonated polyaniline/n-type silicon junctions. Journal of Materials Science: Materials in Electronics, 2009, 20, 123-126.	2.2	13
61	Ambipolar permeable metal-base transistor based on NPB/C60 heterojunction. Organic Electronics, 2009, 10, 210-213.	2.6	9
62	Vertical structure permeable-base hybrid transistors based on multilayered metal base for stable electrical characteristics. Organic Electronics, 2009, 10, 357-362.	2.6	16
63	Large current gain and low operational voltage permeable metal-base organic transistors based on Au/Al double layer metal base. Organic Electronics, 2008, 9, 539-544.	2.6	9
64	Corrigendum to â€˜Magnetic field release of trapped charges in poly(fluorenylenevinylene)sâ€™ [Org. Electr. 8 (2007) 695â€“701]. Organic Electronics, 2008, 9, 930.	2.6	0
65	Vertical structure p-type permeable metal-base organic transistors based on N,Nâ€²-diphentyl-N,Nâ€²-bis(1-naphthylphenyl)-1,1â€²-biphenyl-4,4â€²-diamine. Applied Physics Letters, 2008, 92, 232111.	3.3	22
66	Hybrid metal-base transistor with base of sulfonated polyaniline and fullerene emitter. Applied Physics Letters, 2008, 93, 053301.	3.3	24
67	High gain in hybrid transistors with BAlq3âˆ•Alq3 isotype heterostructure emitter. Applied Physics Letters, 2008, 92, .	3.3	5
68	Hybrid Permeable Metal-Base Transistor with Large Common-Emitter Current Gain and Low Operational Voltage. Journal of Nanoscience and Nanotechnology, 2008, 8, 2037-2043.	0.9	11
69	Polymer Solar Cells Using Single-Wall Carbon Nanotubes Modified with Thiophene Pedant Groups. Journal of Physical Chemistry C, 2007, 111, 18431-18438.	3.1	68
70	Magnetic field release of trapped charges in poly(fluorenylenevinylene)s. Organic Electronics, 2007, 8, 695-701.	2.6	25
71	High gain in hybrid transistors with vanadium oxide/tris(8-hydroxyquinoline) aluminum emitter. Organic Electronics, 2007, 8, 311-316.	2.6	21
72	Carbon nanotubeâ€“polybithiophene photovoltaic devices with high open-circuit voltage. Physica Status Solidi - Rapid Research Letters, 2007, 1, R43-R45.	2.4	33

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73	Synthesis, morphology and device characterizations of a new organic semiconductor based on 2,6-diphenylindenofluorene. Journal of Materials Science: Materials in Electronics, 2007, 18, 903-912.	2.2	6
74	High open-circuit voltage single-layer polybithiophene-based photovoltaic devices. Journal of Solid State Electrochemistry, 2007, 11, 577-580.	2.5	13
75	Ferrocene-Based Copolymer for the Sensingand Discrimination of Low-Molecular-Weight Alcohols. Sensor Letters, 2007, 5, 625-628.	0.4	12
76	A Novel Ferrocene-DOPPV Conjugated Copolymer. Macromolecular Symposia, 2006, 245-246, 22-26.	0.7	5
77	Hybrid Permeable-Base Transistors Based on an Indenofluorene Derivative. Small, 2006, 2, 372-374.	10.0	17
78	Polymeric electronic oscillators based on bistable conductance devices. Organic Electronics, 2006, 7, 397-402.	2.6	13
79	Hybrid magnetic transistor. Solid State Communications, 2006, 139, 27-30.	1.9	5
80	Sulfonated polyaniline/poly(3-methylthiophene)-based photovoltaic devices.. Journal of Solid State Electrochemistry, 2006, 10, 24-27.	2.5	37
81	Physical and chemical characterization of poly(2-bromo-5-hexyloxy-p-phenylenevinylene) and poly(5,5â€²-dibromo-2,2â€²-bis-hexyloxy-4,4â€²-biphenylenevinylene)â€”comparison to related polymers. Materials Chemistry and Physics, 2006, 95, 176-182.	4.0	19
82	Hybrid Molecular/Inorganic Semiconductor Transistors in Vertical Architectures. Advanced Functional Materials, 2006, 16, 459-467.	14.9	38
83	Electrodeposited p-type magnetic metal-base transistor. Journal of Applied Physics, 2006, 99, 08H704.	2.5	14
84	Operation of metallic base transistors with fullerene emitter. Journal of Applied Physics, 2006, 100, 024504.	2.5	6
85	High current density tris(8-hydroxyquinoline) aluminum-based hybrid transistor in vertical architecture. Journal of Applied Physics, 2006, 99, 106102.	2.5	8
86	Copper phthalocyanine based hybrid p-type permeable-base transistor in vertical architecture. Applied Physics Letters, 2006, 88, 203501.	3.3	10
87	Magnetoresistive hybrid transistor in vertical architecture. Physica Status Solidi A, 2005, 202, R158-R160.	1.7	14
88	Efficient organic light-emitting diodes with fluorine-doped tin-oxide anode and electrochemically synthesized sulfonated polyaniline as hole transport layer. Brazilian Journal of Physics, 2005, 35, 1016-1019.	1.4	13
89	Pseudo-metal-base transistor with high gain. Applied Physics Letters, 2005, 86, 263504.	3.3	21
90	A novel soluble poly(fluorenylenevinylene) conjugated polymer: synthesis, characterization and application to optoelectronic devices. Journal of Materials Chemistry, 2005, 15, 517-522.	6.7	29

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91	An electrochemically synthesized sulfonated polyaniline layer for positive charge carrier injection improvement in conjugated polymer devices. Journal of Solid State Electrochemistry, 2004, 8, 118-121.	2.5	13
92	Photovoltaics based on thin electrodeposited bilayers of poly(3-methylthiophene) and polypyrrole. Physica Status Solidi A, 2004, 201, 842-849.	1.7	6
93	Simple and Fast Organic Device Encapsulation Using Polyisobutene. Macromolecular Materials and Engineering, 2004, 289, 311-314.	3.6	20
94	Poly(3-methylthiophene)-based photovoltaic devices prepared onto tin-oxide/sulfonated-polyaniline electrodes. Electrochemistry Communications, 2004, 6, 357-360.	4.7	21
95	Electrochemical preparation of poly(p -phenylene) thin films. Journal of Solid State Electrochemistry, 2003, 7, 463-467.	2.5	7
96	Preparation and Characterization of Novel Hybrid Materials Formed from (Ti,Sn)O2 Nanoparticles and Polyaniline. Chemistry of Materials, 2003, 15, 4658-4665.	6.7	194
97	The electronic behavior of poly(3-octylthiophene) electrochemically synthesized onto Au substrate. Brazilian Journal of Physics, 2003, 33, 392-397.	1.4	23
98	Naphthalene Containing Poly(urethane-urea) for Volatile Memory Device Applications. Macromolecular Materials and Engineering, 2002, 287, 466.	3.6	8
99	Considerations about the electrochemical estimation of the ionization potential of conducting polymers. Journal of Solid State Electrochemistry, 2002, 7, 55-59.	2.5	96
100	Polypyrrole-poly(3-methylthiophene) bilayer films electrochemically deposited onto tin oxide. Journal of Solid State Electrochemistry, 2002, 6, 231-236.	2.5	15
101	Photovoltaic devices based on electrodeposited poly(3-methylthiophene) with tin oxide as the transparent electrode. Journal of Solid State Electrochemistry, 2001, 5, 261-264.	2.5	15
102	Ohmic contacts between sulfonated polyaniline and metals. Journal of Solid State Electrochemistry, 2001, 5, 546-549.	2.5	16
103	The influence of electrode material on charge transport properties of polypyrrole thin films. Thin Solid Films, 2001, 388, 171-176.	1.8	18
104	Title is missing!. Journal of Materials Science, 1998, 6, 235-241.	1.2	6
105	Tin Oxide as a Cathode in Organic Light-Emitting Diodes. Advanced Materials, 1998, 10, 392-394.	21.0	27
106	PolÃmeros conjugados como camada ativa de diodos emissores de luz e fotodetectores. Polimeros, 1998, 8, 55-63.	0.7	5