# Henrique L. Gomes

List of Publications by Year
in descending order



| 116 | 2,619 | 236612 | 214527 |
|---|---|---|---|
| papers | citations | 25 h-index | 47 g-index |

| 120 | 120 | 120 | 3227 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | (Invited) Electro-Optical Techniques to Measure Traps in Organic-Based Devices: Why the Methods Originally Developed for Silicon-Based Devices Must be Modified. ECS Meeting Abstracts, 2021, MA2021-01, 1045-1045. | 0.0 | 0 |
| 2 | High Electrical Anisotropic Multilayered Selfâ€Assembled Organic Films Based on Graphene Oxide and PEDOT:PSS. Advanced Electronic Materials, 2021, 7, 2100255. | 2.6 | 3 |
| 3 | High Electrical Anisotropic Multilayered Selfâ€Assembled Organic Films Based on Graphene Oxide and PEDOT:PSS (Adv. Electron. Mater. 8/2021). Advanced Electronic Materials, 2021, 7, 2170033. | 2.6 | 0 |
| 4 | Resistive switching of silicon-silver thin film devices in flexible substrates. Nanotechnology, 2020, 31, 135702. | 1.3 | 5 |
| 5 | Neuromorphic Organic Devices that Specifically Discriminate Dopamine from Its Metabolites by Nonspecific Interactions. Advanced Functional Materials, 2020, 30, 2002141. | 7.8 | 21 |
| 6 | Neuromorphic Organic Devices: Neuromorphic Organic Devices that Specifically Discriminate Dopamine from Its Metabolites by Nonspecific Interactions (Adv. Funct. Mater. 28/2020). Advanced Functional Materials, 2020, 30, 2070187. | 7.8 | 2 |
| 7 | Ultra-low noise PEDOT:PSS electrodes on bacterial cellulose: A sensor to access bioelectrical signals in non-electrogenic cells. Organic Electronics, 2020, 85, 105882. | 1.4 | 15 |
| 8 | Cartilage acidic protein 1 promotes increased cell viability, cell proliferation and energy metabolism in primary human dermal fibroblasts. Biochimie, 2020, 171-172, 72-78. | 1.3 | 14 |
| 9 | Extracellular electrophysiological based sensor to monitor cancer cells cooperative migration and cell-cell connections. Biosensors and Bioelectronics, 2019, 145, 111708. | 5.3 | 7 |
| 10 | Ultra-Low Power Sensor Devices for Monitoring Physical Activity and Respiratory Frequency in Farmed Fish. Frontiers in Physiology, 2019, 10, 667. | 1.3 | 32 |
| 11 | Small signal analysis of MPCVD diamond Schottky diodes. Diamond and Related Materials, 2019, 93, 131-138. | 1.8 | 8 |
| 12 | Insight into the sensing mechanism of an impedance based electronic tongue for honey botanic origin discrimination. Sensors and Actuators B: Chemical, 2019, 285, 24-33. | 4.0 | 27 |
| 13 | Ultrasensitive bioelectronic devices based on conducting polymers for electrophysiology studies. Chemical Papers, 2018, 72, 1597-1603. | 1.0 | 4 |
| 14 | Transient electrical behavior of an electrode/electrolyte interface based on a surface micro-structured with gold mushroom shapes. Journal of Applied Physics, 2018, 124, . | 1.1 | 2 |
| 15 | Novel flexible inkjet-printed Metal-Insulator-Semiconductor organic diode employing silver electrodes. Organic Electronics, 2018, 62, 335-341. | 1.4 | 13 |
| 16 | Inkjet printed metal insulator semiconductor (MIS) diodes for organic and flexible electronic application. Flexible and Printed Electronics, 2017, 2, 015003. | 1.5 | 19 |
| 17 | Bioelectrical Signal Detection Using Conducting Polymer Electrodes and the Displacement Current Method. IEEE Sensors Journal, 2017, 17, 3961-3966. | 2.4 | 15 |
| 18 | Controlling the crack formation in inkjet-printed silver nanoparticle thin-films for high resolution patterning using intense pulsed light treatment. Nanotechnology, 2017, 28, 495301. | 1.3 | 17 |

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|---|---|---|---|
| 19 | Memristors Using Solution-Based IGZO Nanoparticles. ACS Omega, 2017, 2, 8366-8372. | 1.6 | 38 |
| 20 | The role of the electrode configuration on the electrical properties of small-molecule semiconductor thin-films. Organic Electronics, 2017, 49, 107-113. | 1.4 | 17 |
| 21 | Ultrasensitive gold micro-structured electrodes enabling the detection of extra-cellular long-lasting potentials in astrocytes populations. Scientific Reports, 2017, 7, 14284. | 1.6 | 16 |
| 22 | Extracellular Electrophysiological Measurements of Cooperative Signals in Astrocytes Populations. Frontiers in Neural Circuits, 2017, 11, 80. | 1.4 | 9 |
| 23 | Extracellular electrical recording of pH-triggered bursts in C6 glioma cell populations. Science Advances, 2016, 2, e1600516. | 4.7 | 22 |
| 24 | Improving positive and negative bias illumination stress stability in parylene passivated IGZO transistors. Applied Physics Letters, 2016, 109, . | 1.5 | 58 |
| 25 | Electrochemically Gated Graphene Field-Effect Transistor for Extracellular Cell Signal Recording. IFIP Advances in Information and Communication Technology, 2016, , 558-564. | 0.5 | 2 |
| 26 | Whole organic electronic synapses for dopamine detection. , 2016, , . | | 8 |
| 27 | Performance assessment of polymer based electrodes for in vitro electrophysiological sensing: the role of the electrode impedance. Proceedings of SPIE, 2016, , . | 0.8 | 3 |
| 28 | An electrical method to measure low-frequency collective and synchronized cell activity using extracellular electrodes. Sensing and Bio-Sensing Research, 2016, 10, 1-8. | 2.2 | 21 |
| 29 | All-inkjet-printed thin-film transistors: manufacturing process reliability by root cause analysis. Scientific Reports, 2016, 6, 33490. | 1.6 | 78 |
| 30 | Electrochemical noise and impedance of Au electrode/electrolyte interfaces enabling extracellular detection of glioma cell populations. Scientific Reports, 2016, 6, 34843. | 1.6 | 66 |
| 31 | Up-scaling of the manufacturing of all-inkjet-printed organic thin-film transistors: Device performance and manufacturing yield of transistor arrays. Organic Electronics, 2016, 30, 237-246. | 1.4 | 74 |
| 32 | Unipolar resistive switching in metal oxide/organic semiconductor non-volatile memories as a critical phenomenon. Journal of Applied Physics, 2015, 118, . | 1.1 | 10 |
| 33 | Operational stability of solution based zinc tin oxide/SiO<sub>2</sub> thin film transistors under gate bias stress. APL Materials, 2015, 3, 062804. | 2.2 | 10 |
| 34 | Potential up-scaling of inkjet-printed devices for logical circuits in flexible electronics. AIP Conference Proceedings, 2015, , . | 0.3 | 15 |
| 35 | Sudden death of organic light-emitting diodes. Organic Electronics, 2015, 20, 89-96. | 1.4 | 9 |
| 36 | Low frequency electric current noise in glioma cell populations. Journal of Materials Chemistry B, 2015, 3, 5035-5039. | 2.9 | 14 |

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|---|---|---|---|
| 37 | Charge trapping at the polymer-metal oxide interface as a first step in the electroforming of organic-inorganic memory diodes. Proceedings of SPIE, 2015, , . | 0.8 | 0 |
| 38 | Electrical conduction of LiF interlayers in organic diodes. Journal of Applied Physics, 2015, 117, . | 1.1 | 10 |
| 39 | All-inkjet printed organic transistors: Dielectric surface passivation techniques for improved operational stability and lifetime. Microelectronics Reliability, 2015, 55, 1192-1195. | 0.9 | 25 |
| 40 | Lithium fluoride injection layers can form quasi-Ohmic contacts for both holes and electrons. Applied Physics Letters, 2014, 105, 123302. | 1.5 | 17 |
| 41 | Title: Inkjet-printed rectifying metal-insulator-semiconductor (MIS) diodes for flexible electronic applications. Materials Research Society Symposia Proceedings, 2014, 1628, 1. | 0.1 | 1 |
| 42 | Relation between the electroforming voltage in alkali halide-polymer diodes and the bandgap of the alkali halide. Applied Physics Letters, 2014, 105, 233502. | 1.5 | 5 |
| 43 | Low-frequency noise as a diagnostic tool for OLED reliability. , 2013, , . | | 11 |
| 44 | Inkjet-Printed Organic Electronics: Operational Stability and Reliability Issues. ECS Transactions, 2013, 53, 1-10. | 0.3 | 1 |
| 45 | Reversible post-breakdown conduction in aluminum oxide-polymer capacitors. Applied Physics Letters, 2013, 102, 153509. | 1.5 | 4 |
| 46 | The role of internal structure in the anomalous switching dynamics of metal-oxide/polymer resistive random access memories. Journal of Applied Physics, 2013, 113, . | 1.1 | 11 |
| 47 | Low-Frequency Diffusion Noise in Resistive-Switching Memories Based on Metalâ€“Oxide Polymer Structure. IEEE Transactions on Electron Devices, 2012, 59, 2483-2487. | 1.6 | 16 |
| 48 | Intrinsic and extrinsic resistive switching in a planar diode based on silver oxide nanoparticles. Thin Solid Films, 2012, 522, 407-411. | 0.8 | 14 |
| 49 | Dynamics of charge carrier trapping in NO2 sensors based on ZnO field-effect transistors. Sensors and Actuators B: Chemical, 2012, 171-172, 1172-1179. | 4.0 | 18 |
| 50 | Role of Hole Injection in Electroforming of LiF-Polymer Memory Diodes. Journal of Physical Chemistry C, 2012, 116, 12443-12447. | 1.5 | 10 |
| 51 | Electroforming Process in Metal-Oxide-Polymer Resistive Switching Memories. International Federation for Information Processing, 2012, , 527-534. | 0.4 | 0 |
| 52 | New Electronic Memory Device Concepts Based on Metal Oxide-Polymer Nanostructures Planer Diodes. International Federation for Information Processing, 2012, , 521-526. | 0.4 | 0 |
| 53 | Dynamic Behavior of Resistive Random Access Memories (RRAMS) Based on Plastic Semiconductor. International Federation for Information Processing, 2012, , 535-540. | 0.4 | 1 |
| 54 | Anomalous temperature dependence of the current in a metal-oxide-polymer resistive switching diode. Journal Physics D: Applied Physics, 2011, 44, 025103. | 1.3 | 9 |

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|---|---|---|---|
| 55 | Switching speed in Resistive Random Access Memories (RRAMS) based on plastic semiconductor. Materials Research Society Symposia Proceedings, 2011, 1337, 27. | 0.1 | 0 |
| 56 | Doping Distribution Of An Operating Organic Light-Emitting Diode: A Raman Map Analysis. , 2011, , . | | 0 |
| 57 | Non-volatile memory device using a polymer modified nanocrystal. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1552-1555. | 1.7 | 3 |
| 58 | Opto-electronic characterization of electron traps upon forming polymer oxide memory diodes. Applied Physics Letters, 2011, 99, . | 1.5 | 13 |
| 59 | Planar Non-Volatile Memory based on Metal Nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1337, 145. | 0.1 | 1 |
| 60 | Electrical properties of thin-films wide-band gap semiconductor TiO2prepared by CVD. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, NA-NA. | 0.8 | 2 |
| 61 | Trapping of electrons in metal oxide-polymer memory diodes in the initial stage of electroforming. Applied Physics Letters, 2010, 97, . | 1.5 | 17 |
| 62 | Confocal Scanning Raman Spectroscopy (CSRS) Of An Operating Organic Light-Emitting Diode. , 2010, , . | | 0 |
| 63 | Strategies to Optimize Biosensors Based on Impedance Spectroscopy to Detect Phytic Acid Using Layer-by-Layer Films. Analytical Chemistry, 2010, 82, 3239-3246. | 3.2 | 24 |
| 64 | Resistive switching in nanostructured thin films. Applied Physics Letters, 2009, 94, . | 1.5 | 25 |
| 65 | Magnetic and transport properties of diluted granular multilayers. Journal of Applied Physics, 2009, 106, 113910. | 1.1 | 5 |
| 66 | Gate-bias stress in amorphous oxide semiconductors thin-film transistors. Applied Physics Letters, 2009, 95, . | 1.5 | 213 |
| 67 | Ultralow Power Microfuses for Writeâ€Once Readâ€Many Organic Memory Elements. Advanced Materials, 2008, 20, 3750-3753. | 11.1 | 31 |
| 68 | Switching in polymeric resistance random-access memories (RRAMS). Organic Electronics, 2008, 9, 119-128. | 1.4 | 36 |
| 69 | Spatially-resolved photocapacitance measurements to study defects in a-Si:H based pâ€“iâ€“n particle detectors. Thin Solid Films, 2008, 516, 5118-5121. | 0.8 | 8 |
| 70 | Determining carrier mobility with a metalâ€“insulatorâ€“semiconductor structure. Organic Electronics, 2008, 9, 735-739. | 1.4 | 15 |
| 71 | Switching dynamics in non-volatile polymer memories. Organic Electronics, 2008, 9, 829-833. | 1.4 | 13 |
| 72 | Photocapacitance measurements in irradiated a-Si:H based detectors. Journal of Non-Crystalline Solids, 2008, 354, 2176-2180. | 1.5 | 0 |

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|---|---|---|---|
| 73 | Study of trap states in zinc oxide (ZnO) thin films for electronic applications. Journal of Non-Crystalline Solids, 2008, 354, 2519-2522. | 1.5 | 20 |
| 74 | Modeling electrical characteristics of thin-film field-effect transistors. Synthetic Metals, 2008, 158, 473-478. | 2.1 | 3 |
| 75 | Voltage- and light-induced hysteresis effects at the high-k dielectricâ€"poly(3-hexylthiophene) interface. Applied Physics Letters, 2007, 90, 103513. | 1.5 | 18 |
| 76 | Reproducible resistive switching in nonvolatile organic memories. Applied Physics Letters, 2007, 91, . | 1.5 | 126 |
| 77 | Dynamics of Threshold Voltage Shifts in Organic and Amorphous Silicon Fieldâ€Effect Transistors. Advanced Materials, 2007, 19, 2785-2789. | 11.1 | 223 |
| 78 | Metal contacts in thin-film transistors. Organic Electronics, 2007, 8, 300-304. | 1.4 | 10 |
| 79 | Detection of Chloroform with a Sensor Array Consisting of Electrochemically Deposited Polythiophenes Films: Processes Governing the Electrical Response. Sensor Letters, 2007, 5, 374-379. | 0.4 | 8 |
| 80 | The effect of water related traps on the reliability of organic based transistors. Journal of Non-Crystalline Solids, 2006, 352, 1761-1764. | 1.5 | 12 |
| 81 | Modeling electrical characteristics of thin-film field-effect transistors. Synthetic Metals, 2006, 156, 1316-1326. | 2.1 | 25 |
| 82 | Modeling electrical characteristics of thin-film field-effect transistors. Synthetic Metals, 2006, 156, 1305-1315. | 2.1 | 21 |
| 83 | Thin-film field-effect transistors: The effects of traps on the bias and temperature dependence of field-effect mobility, including the Meyerâ€"Neldel rule. Organic Electronics, 2006, 7, 592-599. | 1.4 | 28 |
| 84 | Organic Materials for Active Layers in Transistors: Study of the Electrical Stability Properties. Materials Science Forum, 2006, 514-516, 33-37. | 0.3 | 1 |
| 85 | Electrical instabilities in organic semiconductors caused by trapped supercooled water. Applied Physics Letters, 2006, 88, 082101. | 1.5 | 85 |
| 86 | Meta-stability effects in organic based transistors. , 2005, 5940, 112. | | 0 |
| 87 | Trap states as an explanation for the Meyerâ€"Neldel rule in semiconductors. Organic Electronics, 2005, 6, 137-141. | 1.4 | 28 |
| 88 | Electrical characterization of organic based transistors: stability issues. Polymers for Advanced Technologies, 2005, 16, 227-231. | 1.6 | 48 |
| 89 | Electronic transport in field-effect transistors of sexithiophene. Journal of Applied Physics, 2004, 96, 5277-5283. | 1.1 | 74 |
| 90 | Bias-induced threshold voltages shifts in thin-film organic transistors. Applied Physics Letters, 2004, 84, 3184-3186. | 1.5 | 189 |

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|---|---|---|---|
| 91 | Electrical Characterization of Vacuum Deposited and Solution Processed DH4T Thin Film Transistors. Materials Research Society Symposia Proceedings, 2003, 771, 1031. | 0.1 | 3 |
| 92 | Interface state mapping in a Schottky barrier of the organic semiconductor terrylene. Organic Electronics, 2002, 3, 43-51. | 1.4 | 50 |
| 93 | Electrical AC behaviour of MPCVD diamond Schottky diodes. Diamond and Related Materials, 2001, 10, 615-619. | 1.8 | 12 |
| 94 | Electrical characterization of pn-junctions of PPV and silicon. Synthetic Metals, 2001, 121, 1535-1536. | 2.1 | 1 |
| 95 | Electrical characterization of CVD diamondâ€"n+ silicon junctions. Diamond and Related Materials, 2001, 10, 858-862. | 1.8 | 16 |
| 96 | Minority-carrier effects in poly-phenylenevinylene as studied by electrical characterization. Journal of Applied Physics, 2001, 89, 1713. | 1.1 | 22 |
| 97 | Electronic levels in MEH-PPV. Synthetic Metals, 2000, 111-112, 535-537. | 2.1 | 25 |
| 98 | UV and visible photoconductivity of undoped diamond films: morphology and related electrical transport phenomena. Diamond and Related Materials, 2000, 9, 1621-1625. | 1.8 | 2 |
| 99 | Microelectrical characterisation of diamond films: an attempt to understand the structural influence on electrical transport phenomena. Diamond and Related Materials, 2000, 9, 1061-1065. | 1.8 | 13 |
| 100 | Analysis of deep levels in a phenylenevinylene polymer by transient capacitance methods. Applied Physics Letters, 1999, 74, 1144-1146. | 1.5 | 44 |
| 101 | Determination of deep and shallow levels in conjugated polymers by electrical methods. Physica B: Condensed Matter, 1999, 273-274, 923-926. | 1.3 | 14 |
| 102 | Interface Properties and Capacitanceâ€"Voltage Behaviour of Diamond Devices Prepared by Microwave-Assisted CVD. Physica Status Solidi A, 1999, 174, 165-170. | 1.7 | 12 |
| 103 | Photocurrents in P3MeT Schottky barrier diodes. Synthetic Metals, 1999, 101, 431-432. | 2.1 | 3 |
| 104 | Electrical study of impurity states in conjugated polymers. Synthetic Metals, 1999, 101, 496-497. | 2.1 | 3 |
| 105 | Influence of the metal center on the morphology of coordination compounds thin films. Synthetic Metals, 1999, 101, 140-141. | 2.1 | 10 |
| 106 | Photoconductivity and electrical properties of diamond films grown by MPCVD. Diamond and Related Materials, 1998, 7, 892-898. | 1.8 | 5 |
| 107 | Electrical Characterization of Semiconducting Polymers. Acta Physica Polonica A, 1998, 94, 545-548. | 0.2 | 2 |
| 108 | Study of Defects in Diamond Films by Electrical Measurements. Materials Science Forum, 1997, 258-263, 793-798. | 0.3 | 1 |

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|---|---|---|---|
| 109 | DLTS investigation of acceptor states in P3MeT Schottky barrier diodes. Synthetic Metals, 1997, 85, 1341-1342. | 2.1 | 11 |
| 110 | Influence of Fabrication Conditions on the Electrical Behaviour of Polymer Schottky Diodes. Synthetic Metals, 1997, 85, 1351-1352. | 2.1 | 4 |
| 111 | Electrical characterization of the rectifying contact between aluminium and electrodeposited poly(3-methylthiophene). Journal Physics D: Applied Physics, 1995, 28, 2554-2568. | 1.3 | 90 |
| 112 | Charge transport in poly(3-methylthiophene) schottky barrier diodes. Synthetic Metals, 1993, 57, 4076-4081. | 2.1 | 16 |
| 113 | Effect of oxygen on the electrical characteristics of field effect transistors formed from electrochemically deposited films of poly(3-methylthiophene). Journal Physics D: Applied Physics, 1991, 24, 2032-2038. | 1.3 | 91 |
| 114 | A microelectrode impedance method to measure interaction of cells. , 0, , . | | 4 |
| 115 | Detection of explosive vapors using organic thin-film transistors. , 0, , . | | 11 |
| 116 | Resistive Switching in Metal Oxide/Organic Semiconductor Nonvolatile Memories. , 0, , . | | 1 |