Pedro Estrela

List of Publications by Year in descending order

133 papers	5,491 citations	87888 38 h-index	88630 70 g-index
139 all docs	139 docs citations	139 times ranked	6802 citing authors

#	Article	IF	Citations
1	An impedimetric immunosensor for the selective detection of CD34+ T-cells in human serum. Sensors and Actuators B: Chemical, 2022, 356, 131306.	7.8	8
2	Molecular Analysis: BioFET Detection Sensors. , 2022, , 631-649.		0
3	Wastewater-based epidemiology in hazard forecasting and early-warning systems for global health risks. Environment International, 2022, 161, 107143.	10.0	8
4	Electrochemical sensors based on metal nanoparticles with biocatalytic activity. Mikrochimica Acta, 2022, 189, 172.	5.0	35
5	Impedimetric aptamer-based glycan PSA score for discrimination of prostate cancer from other prostate diseases. Biosensors and Bioelectronics, 2021, 175, 112872.	10.1	38
6	Hydrogelâ€Forming Microneedles: Current Advancements and Future Trends. Macromolecular Bioscience, 2021, 21, e2000307.	4.1	160
7	Strategies for Multiplexed Electrochemical Sensor Development. Studies in Systems, Decision and Control, 2021, , 63-93.	1.0	5
8	Graphene Enabled Lowâ€Noise Surface Chemistry for Multiplexed Sepsis Biomarker Detection in Whole Blood. Advanced Functional Materials, 2021, 31, 2010638.	14.9	54
9	Electrochemical Biosensors for Cytokine Profiling: Recent Advancements and Possibilities in the Near Future. Biosensors, 2021, 11, 94.	4.7	27
10	Electrochemical Biosensors: Graphene Enabled Lowâ€Noise Surface Chemistry for Multiplexed Sepsis Biomarker Detection in Whole Blood (Adv. Funct. Mater. 16/2021). Advanced Functional Materials, 2021, 31, 2170107.	14.9	1
11	Impact of surface roughness on the self-assembling of molecular films onto gold electrodes for label-free biosensing applications. Electrochimica Acta, 2021, 378, 138137.	5.2	15
12	Printable graphene BioFETs for DNA quantification in Lab-on-PCB microsystems. Scientific Reports, 2021, 11, 9815.	3.3	32
13	Utilising Commercially Fabricated Printed Circuit Boards as an Electrochemical Biosensing Platform. Micromachines, 2021, 12, 793.	2.9	7
14	Multiplexed Prostate Cancer Companion Diagnostic Devices. Sensors, 2021, 21, 5023.	3.8	12
15	Pre-concentration of microRNAs by LNA-modified magnetic beads for enhancement of electrochemical detection. Scientific Reports, 2021, 11, 19650.	3.3	6
16	Rapid and on-site simultaneous electrochemical detection of copper, lead and mercury in the Amazon river. Sensors and Actuators B: Chemical, 2020, 307, 127620.	7.8	75
17	Label-Free DNA Biosensor Using Modified Reduced Graphene Oxide Platform as a DNA Methylation Assay. Materials, 2020, 13, 4936.	2.9	16
18	Biogenic preparation of doughnut shaped manganese nanograins embellished on graphene for superior interfacial binding of biomarkers. Journal of Materials Research and Technology, 2020, 9, 9896-9906.	5.8	7

#	Article	IF	Citations
19	Ultra stable, inkjet-printed pseudo reference electrodes for lab-on-chip integrated electrochemical biosensors. Scientific Reports, 2020, 10, 17152.	3.3	12
20	Integrated Electrochemical Biosensors for Detection of Waterborne Pathogens in Low-Resource Settings. Biosensors, 2020, 10, 36.	4.7	39
21	Towards an intuitive human-robot interaction based on hand gesture recognition and proximity sensors. , 2020, , .		10
22	Electrochemical ELISA Protein Biosensing in Undiluted Serum Using a Polypyrrole-Based Platform. Sensors, 2020, 20, 2857.	3.8	11
23	Electrochemical aptasensor using optimized surface chemistry for the detection of Mycobacterium tuberculosis secreted protein MPT64 in human serum. Biosensors and Bioelectronics, 2019, 123, 141-151.	10.1	46
24	Effect of Graphene Oxide Modification on a DNA Biosensor Developed for the Detection of Methylated DNA Associated with Cancer. Proceedings (mdpi), 2019, 15, .	0.2	0
25	Extracellular Electrophysiology in the Prostate Cancer Cell Model PC-3. Sensors, 2019, 19, 139.	3.8	21
26	In-situ synthesis of 3D ultra-small gold augmented graphene hybrid for highly sensitive electrochemical binding capability. Journal of Colloid and Interface Science, 2019, 553, 289-297.	9.4	10
27	Gold interdigitated triple-microelectrodes for label-free prognosticative aptasensing of prostate cancer biomarker in serum. Biosensors and Bioelectronics, 2019, 136, 118-127.	10.1	57
28	Reduced graphene-oxide transducers for biosensing applications beyond the Debye-screening limit. Biosensors and Bioelectronics, 2019, 130, 352-359.	10.1	15
29	A PNA-based Lab-on-PCB diagnostic platform for rapid and high sensitivity DNA quantification. Biosensors and Bioelectronics, 2019, 123, 244-250.	10.1	52
30	Development of an aptamer-based field effect transistor biosensor for quantitative detection of Plasmodium falciparum glutamate dehydrogenase in serum samples. Biosensors and Bioelectronics, 2019, 123, 30-35.	10.1	54
31	Sensitive and selective Affimer-functionalised interdigitated electrode-based capacitive biosensor for Her4 protein tumour biomarker detection. Biosensors and Bioelectronics, 2018, 108, 1-8.	10.1	57
32	Collective electrical oscillations of a diatom population induced by dark stress. Scientific Reports, 2018, 8, 5484.	3.3	9
33	Development of a Sensitive Multiplexed Open Circuit Potential System for the Detection of Prostate Cancer Biomarkers. BioNanoScience, 2018, 8, 701-706.	3.5	14
34	Capacitive aptasensor based on interdigitated electrode for breast cancer detection in undiluted human serum. Biosensors and Bioelectronics, 2018, 102, 106-112.	10.1	119
35	Microfluidic Devices for Label-Free DNA Detection. Chemosensors, 2018, 6, 43.	3.6	38
36	Exploiting the signatures of nanoplasmonâ€“exciton coupling on proton sensitive insulatorâ€“semiconductor devices for drug discovery applications. Nanoscale, 2018, 10, 13320-13328.	5.6	3

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37	Top-Down Fabricated Silicon Nanowire Arrays for Field-Effect Detection of Prostate-Specific Antigen. ACS Omega, 2018, 3, 8471-8482.	3.5	31
38	Electrochemical ELISA-based platform for bladder cancer protein biomarker detection in urine. Biosensors and Bioelectronics, 2018, 117, 620-627.	10.1	45
39	Recent Advances in Enhancement Strategies for Electrochemical ELISA-Based Immunoassays for Cancer Biomarker Detection. Sensors, 2018, 18, 2010.	3.8	75
40	Capacitive malaria aptasensor using Plasmodium falciparum glutamate dehydrogenase as target antigen in undiluted human serum. Biosensors and Bioelectronics, 2018, 117, 246-252.	10.1	50
41	Electrochemical immunosensor for tumor necrosis factor-alpha detection in undiluted serum. Methods, 2017, 116, 125-131.	3.8	32
42	Self-assembled gold nanoparticles for impedimetric and amperometric detection of a prostate cancer biomarker. Sensors and Actuators B: Chemical, 2017, 251, 637-643.	7.8	52
43	Aptamer-based Field-Effect Biosensor for Tenofovir Detection. Scientific Reports, 2017, 7, 44409.	3.3	66
44	Nanomaterial Fungicides: In Vitro and In Vivo Antimycotic Activity of Cobalt and Nickel Nanoferrites on Phytopathogenic Fungi. Global Challenges, 2017, 1, 1700041.	3.6	57
45	A Peptide Nucleic Acid (PNA)â€ÐNA Ferrocenyl Intercalator for Electrochemical Sensing. Electroanalysis, 2017, 29, 917-922.	2.9	11
46	Semiconductor technology in protein kinase research and drug discovery: sensing a revolution. Drug Discovery Today, 2017, 22, 204-209.	6.4	4
47	Raman and MÃ¶ssbauer spectroscopic studies of tungsten doped Niâ€“Zn nano ferrite. Journal of Materials Science: Materials in Electronics, 2017, 28, 679-685.	2.2	12
48	Nucleic Acid-Based Aptasensors for Cancer Diagnostics: An Insight into Immobilisation Strategies. , 2017, , 205-231.		1
49	Electrochemical and SERS Based Biosensors for Cancer Biomarkers Detection. Proceedings (mdpi), 2017, 1, .	0.2	0
50	Biosensors for Screening Kinase Inhibitors. Current Topics in Medicinal Chemistry, 2017, 17, 2470-2481.	2.1	0
51	Fabrication of a Horizontal and a Vertical Large Surface Area Nanogap Electrochemical Sensor. Sensors, 2016, 16, 2128.	3.8	8
52	Inexpensive and fast pathogenic bacteria screening using field-effect transistors. Biosensors and Bioelectronics, 2016, 85, 103-109.	10.1	33
53	Cadmium Sulfide Nanoparticles Decorated with Au Quantum Dots as Ultrasensitive Photoelectrochemical Sensor for Selective Detection of Copper(II) Ions. Journal of Physical Chemistry C, 2016, 120, 22202-22214.	3.1	71
54	Introduction to biosensors. Essays in Biochemistry, 2016, 60, 1-8.	4.7	858

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55	Oligonucleotide-based systems: DNA, microRNAs, DNA/RNA aptamers. Essays in Biochemistry, 2016, 60, 27-35.	4.7	26
56	Electrochemical biosensors and nanobiosensors. Essays in Biochemistry, 2016, 60, 69-80.	4.7	265
57	Hybrid Synthetic Receptors on MOSFET Devices for Detection of Prostate Specific Antigen in Human Plasma. Analytical Chemistry, 2016, 88, 11486-11490.	6.5	35
58	Highly sensitive dual mode electrochemical platform for microRNA detection. Scientific Reports, 2016, 6, 36719.	3.3	64
59	Electro-Engineered Polymeric Films for the Development of Sensitive Aptasensors for Prostate Cancer Marker Detection. ACS Sensors, 2016, 1, 1308-1314.	7.8	35
60	Community Sewage Sensors towards Evaluation of Drug Use Trends: Detection of Cocaine in Wastewater with DNA-Directed Immobilization Aptamer Sensors. Scientific Reports, 2016, 6, 21024.	3.3	35
61	Label-Free Ultrasensitive Memristive Aptasensor. Nano Letters, 2016, 16, 4472-4476.	9.1	87
62	DNA aptamer-based sandwich microfluidic assays for dual quantification and multi-glycan profiling of cancer biomarkers. Biosensors and Bioelectronics, 2016, 79, 313-319.	10.1	61
63	Aptamerâ€“MIP hybrid receptor for highly sensitive electrochemical detection of prostate specific antigen. Biosensors and Bioelectronics, 2016, 75, 188-195.	10.1	231
64	Biosensors â€“ Topical issue. Chemical Papers, 2015, 69, 1-3.	2.2	5
65	Boronâ€Doped Diamond Dualâ€Plate Deepâ€Microtrench Device for Generatorâ€Collector Sulfide Sensing. Electroanalysis, 2015, 27, 2645-2653.	2.9	6
66	Optimisation and Characterisation of Anti-Fouling Ternary SAM Layers for Impedance-Based Aptasensors. Sensors, 2015, 15, 25015-25032.	3.8	50
67	Point-of-Care Diagnostics in Low Resource Settings: Present Status and Future Role of Microfluidics. Biosensors, 2015, 5, 577-601.	4.7	259
68	Optimisation of an electrochemical impedance spectroscopy aptasensor by exploiting quartz crystal microbalance with dissipation signals. Sensors and Actuators B: Chemical, 2015, 220, 369-375.	7.8	58
69	A simple and highly sensitive electrochemical platform for detection of MicroRNAs. , 2015, , .		4
70	Ferroceneâ€Boronic Acidâ€“Fructose Binding Based on Dualâ€Plate Generatorâ€“Collector Voltammetry and Squareâ€Wave Voltammetry. ChemElectroChem, 2015, 2, 867-871.	3.4	6
71	Multimodal electrochemical and nanoplasmonic biosensors using ferrocene-crowned nanoparticles for kinase drug discovery applications. Electrochemistry Communications, 2015, 57, 70-73.	4.7	18
72	DNA aptamer-based detection of prostate cancer. Chemical Papers, 2015, 69, .	2.2	41

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73	Community Sewage Sensors for Monitoring Public Health. Environmental Science & Technology, 2015, 49, 5845-5846.	10.0	56
74	Plasmonic ruler on field-effect devices for kinase drug discovery applications. Biosensors and Bioelectronics, 2015, 71, 121-128.	10.1	23
75	A novel immobilization strategy for electrochemical detection of cancer biomarkers: DNA-directed immobilization of aptamer sensors for sensitive detection of prostate specific antigens. Analyst, The, 2015, 140, 2628-2633.	3.5	59
76	A Novel DNA Biosensor Using a Ferrocenyl Intercalator Applied to the Potential Detection of Human Population Biomarkers in Wastewater. Environmental Science & Technology, 2015, 49, 5609-5617.	10.0	44
77	Protein phosphorylation detection using dual-mode field-effect devices and nanoplasmonic sensors. Scientific Reports, 2015, 5, 8687.	3.3	32
78	Label-free impedimetric aptasensor with antifouling surface chemistry: A prostate specific antigen case study. Sensors and Actuators B: Chemical, 2015, 209, 306-312.	7.8	134
79	Molecular Analysis: BioFET Detection Sensors. , 2015, , 1-19.		0
80	Field-Effect Transistors: Current Advances and Challenges in Bringing Them to Point-of-Care. , 2015, , 353-371.		3
81	Switching of electrochemical characteristics of redox protein upon specific biomolecular interactions. Analyst, The, 2014, 139, 6118-6121.	3.5	3
82	Cysteine-Cystine Redox Cycling in a Goldâ€“Gold Dual-Plate Generator-Collector Microtrench Sensor. Analytical Chemistry, 2014, 86, 6748-6752.	6.5	26
83	Protein phosphorylation analysis based on proton release detection: Potential tools for drug discovery. Biosensors and Bioelectronics, 2014, 54, 109-114.	10.1	30
84	A novel cobalt complex for enhancing amperometric and impedimetric DNA detection. Electrochimica Acta, 2014, 128, 10-15.	5.2	10
85	Localized Surface Plasmon Resonance as a Biosensing Platform for Developing Countries. Biosensors, 2014, 4, 172-188.	4.7	142
86	Electrowetting enabled magnetic particle immunoassay with on-chip magnetic washing. , 2013, , .		0
87	Nanoparticle-Induced Catalysis for Electrochemical DNA Biosensors Arben MerkoçÂ¸i. , 2012, , 159-180.		0
88	Biomolecular and electrochemical charge detection by a micromechanical electrometer. Sensors and Actuators B: Chemical, 2011, 160, 301-305.	7.8	15
89	Single-crystal study on the heavy-fermion antiferromagnet UZn₁₂. Journal of Physics Condensed Matter, 2011, 23, 045602.	1.8	1
90	Fabrication of BioFET linear array for detection of protein interactions. Microelectronic Engineering, 2010, 87, 753-755.	2.4	14

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92	Carbon Nanostructure-Based Field-Effect Transistors for Label-Free Chemical/Biological Sensors. Sensors, 2010, 10, 5133-5159.	3.8	145
93	Detection of Molecular Interactions with Modified Ferrocene Self-Assembled Monolayers. Journal of Physical Chemistry B, 2010, 114, 10661-10665.	2.6	19
94	Label-Free Electrical Biosensor Arrays: A New Challenge for TFT Technology. Journal of the Korean Physical Society, 2009, 54, 498-504.	0.7	10
95	Optimization of DNA immobilization on gold electrodes for label-free detection by electrochemical impedance spectroscopy. Biosensors and Bioelectronics, 2008, 23, 1291-1297.	10.1	214
96	Optimization of label-free DNA detection with electrochemical impedance spectroscopy using PNA probes. Biosensors and Bioelectronics, 2008, 24, 906-911.	10.1	112
97	Label-Free Detection of Protein interactions with peptide aptamers by open circuit potential measurement. Electrochimica Acta, 2008, 53, 6489-6496.	5.2	35
98	Label-free electrical detection of DNA hybridization for the example of influenza virus gene sequences. Analytical Biochemistry, 2008, 374, 143-153.	2.4	55
99	Application of thin film transistors to label-free electrical biosensors. , 2008, , .		3
100	Potentiometric detection of protein interactions with peptide aptamers. , 2008, , .		3
101	Self-assembled nanotube field-effect transistors for label-free protein biosensors. Journal of Applied Physics, 2008, 104, .	2.5	24
102	Chemical and biological sensors using polycrystalline silicon TFTs. Journal of Materials Chemistry, 2007, 17, 219-224.	6.7	48
103	Field effect detection of biomolecular interactions. Electrochimica Acta, 2005, 50, 4995-5000.	5.2	72
104	Electrical detection of biomolecular interactions with metalâ€“insulatorâ€“semiconductor diodes. Biosensors and Bioelectronics, 2005, 20, 1580-1586.	10.1	34
105	Polycrystalline silicon ion sensitive field effect transistors. Applied Physics Letters, 2005, 86, 053901.	3.3	38
106	Polycrystalline Silicon ISFETs on Glass Substrate. Sensors, 2005, 5, 293-301.	3.8	6
107	Thermal expansion of CeCu6â^'xAux. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 23-24.	2.3	2
108	HIGH PRESSURE TRANSPORT STUDY OF NON-FERMI LIQUID BEHAVIOUR IN U2Pt2In AND U3Ni3Sn4. International Journal of Modern Physics B, 2002, 16, 2998-3003.	2.0	2

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109	Pressure-induced recovery of the Fermi-liquid state in the non-Fermi liquid material U2Pt2In. Physica B: Condensed Matter, 2002, 312-313, 482-484.	2.7	1
110	High-pressure study of the non-Fermi liquid material U 2 Pt 2 In. European Physical Journal B, 2001, 23, 449-454.	1.5	6
111	Recovery of the Fermi-liquid state inU3Ni3Sn4by pressure. Physical Review B, 2001, 63, .	3.2	8
112	Muon localization site in U(Pt,Pd)3. Physica B: Condensed Matter, 2000, 289-290, 455-458.	2.7	6
113	Crystal structure and physical properties of U3T3Sn4 (T=Ni, Cu) single crystals. Physica B: Condensed Matter, 2000, 292, 89-96.	2.7	5
114	Resistivity of non-Fermi liquid U2Pt2In under pressure. Physica B: Condensed Matter, 2000, 281-282, 381-383.	2.7	4
115	Possible non-Fermi-liquid behaviour in URh1/3Ni2/3Al. Physica B: Condensed Matter, 2000, 281-282, 377-378.	2.7	5
116	Magnetic Quantum Critical Point and Superconductivity inUPt3Doped with Pd. Physical Review Letters, 2000, 85, 3005-3008.	7.8	23
117	Magnetization density distribution in. Journal of Physics Condensed Matter, 1999, 11, 2115-2125.	1.8	2
118	Non-Fermi-liquid behaviour of U3-xNi3Sn4-ysingle crystals. Journal of Physics Condensed Matter, 1999, 11, 3525-3534.	1.8	7
119	Non-Fermi-liquid behaviour in U2Pt2In. Physica B: Condensed Matter, 1999, 259-261, 409-411.	2.7	17
120	Non-Fermi liquid behavior in U3â^'xNi3Sn4â^'y single crystals. Physica B: Condensed Matter, 1999, 259-261, 423-425.	2.7	3
121	Magnetic and transport properties of U2Pt2In single crystals. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 885-887.	2.3	3
122	Crystallographic and magnetic properties of UFe5.8Al6.2 single crystals. Journal of Magnetism and Magnetic Materials, 1998, 189, 283-292.	2.3	14
123	Structural, magnetic and transport properties of single-crystalline. Journal of Physics Condensed Matter, 1998, 10, 9465-9475.	1.8	15
124	Single crystal magnetisation of UFe10Mo2. Journal of Magnetism and Magnetic Materials, 1997, 167, L185-L188.	2.3	3
125	Anomalous magnetisation process in UFe4Al8 probed by magnetisation and magnetoresistance. Journal of Magnetism and Magnetic Materials, 1996, 157-158, 690-691.	2.3	5
126	Magnetic phase transitions in RFe9.5Mo2.5 intermetallics studied by 57Fe MÃ¶ssbauer spectroscopy, magnetisation and Î¼+SR. Journal of Magnetism and Magnetic Materials, 1996, 164, 305-318.	2.3	12

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127	Giant-magnetoresistance anomaly associated with a magnetization process in UFe4Al8. Physical Review B, 1996, 53, R480-R483.	3.2	31
128	A single-crystal magnetization and neutron scattering investigation of the magnetic structure of. Journal of Physics Condensed Matter, 1996, 8, 11167-11179.	1.8	13
129	Structural and magnetic properties of UFe M12 â˜’ (M = Al, Mo and Si) intermetallic compounds. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 1419-1420.	2.3	8
130	Magnetic properties of UFe10Si2 single crystal. Journal of Alloys and Compounds, 1995, 230, 35-41.	5.5	14
131	Structural and physical properties of UFe10Mo2. Journal of Alloys and Compounds, 1995, 218, 183-189.	5.5	10
132	The irreversibility line of the superconducting compound HgBa2Ca3Cu4O10+Î´. Physica C: Superconductivity and Its Applications, 1994, 235-240, 2731-2732.	1.2	7
133	Catching the Sugars: Electrochemical Aptasensors for the Detection of Cancer-Related Glycosylation Changes in Prostate-Specific Antigen. , 0, , .		1