

Amay J Bandodkar

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

60 papers	9,061 citations	43 h-index	63 g-index
63 ext. papers	10,644 ext. citations	12.1 avg, IF	6.65 L-index

#	Paper	IF	Citations
60	Non-invasive wearable electrochemical sensors: a review. <i>Trends in Biotechnology</i> , 2014 , 32, 363-71	15.1	752
59	Electrochemical tattoo biosensors for real-time noninvasive lactate monitoring in human perspiration. <i>Analytical Chemistry</i> , 2013 , 85, 6553-60	7.8	539
58	A wearable chemical-electrophysiological hybrid biosensing system for real-time health and fitness monitoring. <i>Nature Communications</i> , 2016 , 7, 11650	17.4	510
57	Bio-Integrated Wearable Systems: A Comprehensive Review. <i>Chemical Reviews</i> , 2019 , 119, 5461-5533	68.1	496
56	Wearable Chemical Sensors: Present Challenges and Future Prospects. <i>ACS Sensors</i> , 2016 , 1, 464-482	9.2	469
55	Tattoo-based noninvasive glucose monitoring: a proof-of-concept study. <i>Analytical Chemistry</i> , 2015 , 87, 394-8	7.8	434
54	Noninvasive Alcohol Monitoring Using a Wearable Tattoo-Based Iontophoretic-Biosensing System. <i>ACS Sensors</i> , 2016 , 1, 1011-1019	9.2	350
53	Epidermal tattoo potentiometric sodium sensors with wireless signal transduction for continuous non-invasive sweat monitoring. <i>Biosensors and Bioelectronics</i> , 2014 , 54, 603-9	11.8	326
52	Battery-free, skin-interfaced microfluidic/electronic systems for simultaneous electrochemical, colorimetric, and volumetric analysis of sweat. <i>Science Advances</i> , 2019 , 5, eaav3294	14.3	299
51	Advanced Materials for Printed Wearable Electrochemical Devices: A Review. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600260	6.4	290
50	Tattoo-based potentiometric ion-selective sensors for epidermal pH monitoring. <i>Analyst, The</i> , 2013 , 138, 123-8	5	248
49	Non-invasive mouthguard biosensor for continuous salivary monitoring of metabolites. <i>Analyst, The</i> , 2014 , 139, 1632-6	5	236
48	Highly Stretchable Fully-Printed CNT-Based Electrochemical Sensors and Biofuel Cells: Combining Intrinsic and Design-Induced Stretchability. <i>Nano Letters</i> , 2016 , 16, 721-7	11.5	229
47	Soft, stretchable, high power density electronic skin-based biofuel cells for scavenging energy from human sweat. <i>Energy and Environmental Science</i> , 2017 , 10, 1581-1589	35.4	225
46	Epidermal biofuel cells: energy harvesting from human perspiration. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 7233-6	16.4	223
45	Tattoo-Based Wearable Electrochemical Devices: A Review. <i>Electroanalysis</i> , 2015 , 27, 562-572	3	222
44	A potentiometric tattoo sensor for monitoring ammonium in sweat. <i>Analyst, The</i> , 2013 , 138, 7031-8	5	212

43	A stretchable and screen-printed electrochemical sensor for glucose determination in human perspiration. <i>Biosensors and Bioelectronics</i> , 2017 , 91, 885-891	11.8	201
42	Wearable Sensors for Biochemical Sweat Analysis. <i>Annual Review of Analytical Chemistry</i> , 2019 , 12, 1-22	12.5	157
41	Wearable temporary tattoo sensor for real-time trace metal monitoring in human sweat. <i>Electrochemistry Communications</i> , 2015 , 51, 41-45	5.1	156
40	All-printed stretchable electrochemical devices. <i>Advanced Materials</i> , 2015 , 27, 3060-5	24	150
39	Waterproof, electronics-enabled, epidermal microfluidic devices for sweat collection, biomarker analysis, and thermography in aquatic settings. <i>Science Advances</i> , 2019 , 5, eaau6356	14.3	142
38	Soft, Skin-Integrated Multifunctional Microfluidic Systems for Accurate Colorimetric Analysis of Sweat Biomarkers and Temperature. <i>ACS Sensors</i> , 2019 , 4, 379-388	9.2	134
37	Electrochemical sensing based on printable temporary transfer tattoos. <i>Chemical Communications</i> , 2012 , 48, 6794-6	5.8	128
36	Wearable Biofuel Cells: A Review. <i>Electroanalysis</i> , 2016 , 28, 1188-1200	3	126
35	Wearable textile biofuel cells for powering electronics. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 18184-18189	11.9	119
34	Microneedle-based self-powered glucose sensor. <i>Electrochemistry Communications</i> , 2014 , 47, 58-62	5.1	118
33	A fluorometric skin-interfaced microfluidic device and smartphone imaging module for in situ quantitative analysis of sweat chemistry. <i>Lab on A Chip</i> , 2018 , 18, 2178-2186	7.2	113
32	An epidermal alkaline rechargeable Ag/Zn printable tattoo battery for wearable electronics. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 15788-15795	13	112
31	Soft, skin-mounted microfluidic systems for measuring secretory fluidic pressures generated at the surface of the skin by eccrine sweat glands. <i>Lab on A Chip</i> , 2017 , 17, 2572-2580	7.2	93
30	Passive sweat collection and colorimetric analysis of biomarkers relevant to kidney disorders using a soft microfluidic system. <i>Lab on A Chip</i> , 2019 , 19, 1545-1555	7.2	91
29	Super-Absorbent Polymer Valves and Colorimetric Chemistries for Time-Sequenced Discrete Sampling and Chloride Analysis of Sweat via Skin-Mounted Soft Microfluidics. <i>Small</i> , 2018 , 14, e1703334	11	81
28	All-printed magnetically self-healing electrochemical devices. <i>Science Advances</i> , 2016 , 2, e1601465	14.3	81
27	Fundamentals and application of ordered molecular assemblies to affinity biosensing. <i>Chemical Society Reviews</i> , 2012 , 41, 1363-402	58.5	80
26	Review Wearable Biofuel Cells: Past, Present and Future. <i>Journal of the Electrochemical Society</i> , 2017 , 164, H3007-H3014	3.9	76

25	Re-usable electrochemical glucose sensors integrated into a smartphone platform. <i>Biosensors and Bioelectronics</i> , 2018 , 101, 181-187	11.8	70
24	Soft, Skin-Interfaced Microfluidic Systems with Wireless, Battery-Free Electronics for Digital, Real-Time Tracking of Sweat Loss and Electrolyte Composition. <i>Small</i> , 2018 , 14, e1802876	11	66
23	Merging of Thin- and Thick-Film Fabrication Technologies: Toward Soft Stretchable Island-Bridge Devices. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600284	6.8	57
22	Solid-state Forensic Finger sensor for integrated sampling and detection of gunshot residue and explosives: towards 'Lab-on-a-finger'. <i>Analyst, The</i> , 2013 , 138, 5288-95	5	57
21	Stamp transfer electrodes for electrochemical sensing on non-planar and oversized surfaces. <i>Analyst, The</i> , 2012 , 137, 1570-5	5	54
20	Biocompatible enzymatic roller pens for direct writing of biocatalytic materials: "do-it-yourself" electrochemical biosensors. <i>Advanced Healthcare Materials</i> , 2015 , 4, 1215-24	10.1	50
19	Sweat-activated biocompatible batteries for epidermal electronic and microfluidic systems. <i>Nature Electronics</i> , 2020 , 3, 554-562	28.4	48
18	Body-Interfaced Chemical Sensors for Noninvasive Monitoring and Analysis of Biofluids. <i>Trends in Chemistry</i> , 2019 , 1, 559-571	14.8	47
17	Soft, Skin-Interfaced Microfluidic Systems with Passive Galvanic Stopwatches for Precise Chronometric Sampling of Sweat. <i>Advanced Materials</i> , 2019 , 31, e1902109	24	42
16	Recent advances in neurotechnologies with broad potential for neuroscience research. <i>Nature Neuroscience</i> , 2020 , 23, 1522-1536	25.5	42
15	Self-Healing Inks for Autonomous Repair of Printable Electrochemical Devices. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500289	6.4	40
14	Resettable skin interfaced microfluidic sweat collection devices with chemesthetic hydration feedback. <i>Nature Communications</i> , 2019 , 10, 5513	17.4	39
13	Three-dimensional, multifunctional neural interfaces for cortical spheroids and engineered assembloids. <i>Science Advances</i> , 2021 , 7,	14.3	38
12	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. <i>Science Advances</i> , 2020 , 6, eabb1093	14.3	35
11	Low density lipoprotein detection based on antibody immobilized self-assembled monolayer: investigations of kinetic and thermodynamic properties. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 14405-12	3.4	34
10	Swipe and Scan Integration of sampling and analysis of gunshot metal residues at screen-printed electrodes. <i>Electrochemistry Communications</i> , 2012 , 23, 52-55	5.1	25
9	Soft, skin-interfaced sweat stickers for cystic fibrosis diagnosis and management. <i>Science Translational Medicine</i> , 2021 , 13,	17.5	21
8	Nanostructured conducting polymer based reagentless capacitive immunosensor. <i>Biomedical Microdevices</i> , 2010 , 12, 63-70	3.7	15

7	Modeling, design guidelines, and detection limits of self-powered enzymatic biofuel cell-based sensors. <i>Biosensors and Bioelectronics</i> , 2020 , 168, 112493	11.8	12
6	Wearable chemical sensors: Opportunities and challenges 2016 ,		11
5	Epidermal Biofuel Cells: Energy Harvesting from Human Perspiration. <i>Angewandte Chemie</i> , 2013 , 125, 7374-7377	3.6	9
4	Can peroxygenase and microperoxidase substitute cytochrome P450 in biosensors. <i>Bioanalytical Reviews</i> , 2011 , 3, 67-94	1	9
3	Skin-interfaced soft microfluidic systems with modular and reusable electronics for capacitive sensing of sweat loss, rate and conductivity. <i>Lab on A Chip</i> , 2020 , 20, 4391-4403	7.2	9
2	Rapid Capture and Extraction of Sweat for Regional Rate and Cytokine Composition Analysis Using a Wearable Soft Microfluidic System. <i>Journal of Investigative Dermatology</i> , 2021 , 141, 433-437.e3	4.3	7
1	Don't Sweat It: The Quest for Wearable Stress Sensors. <i>Matter</i> , 2020 , 2, 795-797	12.7	4