Amay J Bandodkar

List of Publications by Year
in descending order

61	12,266	41344 49	128289 60
papers	citations	h-index	g-index

63	63	63	10400
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Non-invasive wearable electrochemical sensors: a review. Trends in Biotechnology, 2014, 32, 363-371.	9.3	943
2	Bio-Integrated Wearable Systems: A Comprehensive Review. Chemical Reviews, 2019, 119, 5461-5533.	47.7	822
3	Electrochemical Tattoo Biosensors for Real-Time Noninvasive Lactate Monitoring in Human Perspiration. Analytical Chemistry, 2013, 85, 6553-6560.	6.5	686
4	A wearable chemicalâ€“electrophysiological hybrid biosensing system for real-time health and fitness monitoring. Nature Communications, 2016, 7, 11650.	12.8	639
5	Wearable Chemical Sensors: Present Challenges and Future Prospects. ACS Sensors, 2016, 1, 464-482.	7.8	596
6	Tattoo-Based Noninvasive Glucose Monitoring: A Proof-of-Concept Study. Analytical Chemistry, 2015, 87, 394-398.	6.5	562
7	Battery-free, skin-interfaced microfluidic/electronic systems for simultaneous electrochemical, colorimetric, and volumetric analysis of sweat. Science Advances, 2019, 5, eaav3294.	10.3	497
8	Noninvasive Alcohol Monitoring Using a Wearable Tattoo-Based Iontophoretic-Biosensing System. ACS Sensors, 2016, 1, 1011-1019.	7.8	460
9	Epidermal tattoo potentiometric sodium sensors with wireless signal transduction for continuous non-invasive sweat monitoring. Biosensors and Bioelectronics, 2014, 54, 603-609.	10.1	403
10	Advanced Materials for Printed Wearable Electrochemical Devices: A Review. Advanced Electronic Materials, 2017, 3, 1600260.	5.1	358
11	Soft, stretchable, high power density electronic skin-based biofuel cells for scavenging energy from human sweat. Energy and Environmental Science, 2017, 10, 1581-1589.	30.8	309
12	Tattoo-based potentiometric ion-selective sensors for epidermal pH monitoring. Analyst, The, 2013, 138, 123-128.	3.5	300
13	Non-invasive mouthguard biosensor for continuous salivary monitoring of metabolites. Analyst, The, 2014, 139, 1632-1636.	3.5	292
14	Highly Stretchable Fully-Printed CNT-Based Electrochemical Sensors and Biofuel Cells: Combining Intrinsic and Design-Induced Stretchability. Nano Letters, 2016, 16, 721-727.	9.1	276
15	A potentiometric tattoo sensor for monitoring ammonium in sweat. Analyst, The, 2013, 138, 7031.	3.5	274
16	A stretchable and screen-printed electrochemical sensor for glucose determination in human perspiration. Biosensors and Bioelectronics, 2017, 91, 885-891.	10.1	274
17	Epidermal Biofuel Cells: Energy Harvesting from Human Perspiration. Angewandte Chemie - International Edition, 2013, 52, 7233-7236.	13.8	271
18	Tattooâ€Based Wearable Electrochemical Devices: A Review. Electroanalysis, 2015, 27, 562-572.	2.9	265

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19	Wearable Sensors for Biochemical Sweat Analysis. Annual Review of Analytical Chemistry, 2019, 12, 1-22.	5.4	259
20	Soft, Skin-Integrated Multifunctional Microfluidic Systems for Accurate Colorimetric Analysis of Sweat Biomarkers and Temperature. ACS Sensors, 2019, 4, 379-388.	7.8	239
21	Waterproof, electronics-enabled, epidermal microfluidic devices for sweat collection, biomarker analysis, and thermography in aquatic settings. Science Advances, 2019, 5, eaau6356.	10.3	208
22	Wearable temporary tattoo sensor for real-time trace metal monitoring in human sweat. Electrochemistry Communications, 2015, 51, 41-45.	4.7	193
23	Allâ€Printed Stretchable Electrochemical Devices. Advanced Materials, 2015, 27, 3060-3065.	21.0	172
24	A fluorometric skin-interfaced microfluidic device and smartphone imaging module for in situ quantitative analysis of sweat chemistry. Lab on A Chip, 2018, 18, 2178-2186.	6.0	166
25	Passive sweat collection and colorimetric analysis of biomarkers relevant to kidney disorders using a soft microfluidic system. Lab on A Chip, 2019, 19, 1545-1555.	6.0	157
26	Wearable textile biofuel cells for powering electronics. Journal of Materials Chemistry A, 2014, 2, 18184-18189.	10.3	156
27	Electrochemical sensing based on printable temporary transfer tattoos. Chemical Communications, 2012, 48, 6794.	4.1	150
28	Microneedle-based self-powered glucose sensor. Electrochemistry Communications, 2014, 47, 58-62.	4.7	150
29	Wearable Biofuel Cells: A Review. Electroanalysis, 2016, 28, 1188-1200.	2.9	149
30	An epidermal alkaline rechargeable Agâ€“Zn printable tattoo battery for wearable electronics. Journal of Materials Chemistry A, 2014, 2, 15788-15795.	10.3	130
31	Three-dimensional, multifunctional neural interfaces for cortical spheroids and engineered assembloids. Science Advances, 2021, 7, .	10.3	128
32	Superâ€Absorbent Polymer Valves and Colorimetric Chemistries for Timeâ€Sequenced Discrete Sampling and Chloride Analysis of Sweat via Skinâ€Mounted Soft Microfluidics. Small, 2018, 14, e1703334.	10.0	119
33	Soft, skin-mounted microfluidic systems for measuring secretory fluidic pressures generated at the surface of the skin by eccrine sweat glands. Lab on A Chip, 2017, 17, 2572-2580.	6.0	117
34	Recent advances in neurotechnologies with broad potential for neuroscience research. Nature Neuroscience, 2020, 23, 1522-1536.	14.8	111
35	All-printed magnetically self-healing electrochemical devices. Science Advances, 2016, 2, e1601465.	10.3	101
36	Sweat-activated biocompatible batteries for epidermal electronic and microfluidic systems. Nature Electronics, 2020, 3, 554-562.	26.0	99

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37	Fundamentals and application of ordered molecular assemblies to affinity biosensing. Chemical Society Reviews, 2012, 41, 1363-1402.	38.1	94
38	Reviewâ€"Wearable Biofuel Cells: Past, Present and Future. Journal of the Electrochemical Society, 2017, 164, H3007-H3014.	2.9	93
39	Re-usable electrochemical glucose sensors integrated into a smartphone platform. Biosensors and Bioelectronics, 2018, 101, 181-187.	10.1	93
40	Soft, Skinâ€Interfaced Microfluidic Systems with Wireless, Batteryâ€Free Electronics for Digital, Realâ€Time Tracking of Sweat Loss and Electrolyte Composition. Small, 2018, 14, e1802876.	10.0	88
41	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. Science Advances, 2020, 6, eabb1093.	10.3	87
42	Resettable skin interfaced microfluidic sweat collection devices with chemesthetic hydration feedback. Nature Communications, 2019, 10, 5513.	12.8	74
43	Merging of Thinâ€and Thickâ€Film Fabrication Technologies: Toward Soft Stretchable â€œIslandâ€"Bridgeâ€ Devices. Advanced Materials Technologies, 2017, 2, 1600284.	5.8	71
44	Body-Interfaced Chemical Sensors for Noninvasive Monitoring and Analysis of Biofluids. Trends in Chemistry, 2019, 1, 559-571.	8.5	71
45	Solid-state Forensic Finger sensor for integrated sampling and detection of gunshot residue and explosives: towards â€˜Lab-on-a-fingerâ€™. Analyst, The, 2013, 138, 5288.	3.5	66
46	Soft, skin-interfaced sweat stickers for cystic fibrosis diagnosis and management. Science Translational Medicine, 2021, 13, .	12.4	65
47	Stamp transfer electrodes for electrochemical sensing on non-planar and oversized surfaces. Analyst, The, 2012, 137, 1570.	3.5	62
48	Soft, Skinâ€Interfaced Microfluidic Systems with Passive Galvanic Stopwatches for Precise Chronometric Sampling of Sweat. Advanced Materials, 2019, 31, e1902109.	21.0	62
49	Biocompatible Enzymatic Roller Pens for Direct Writing of Biocatalytic Materials: â€œDoâ€itâ€Yourselfâ€ Electrochemical Biosensors. Advanced Healthcare Materials, 2015, 4, 1215-1224.	7.6	58
50	Selfâ€Healing Inks for Autonomous Repair of Printable Electrochemical Devices. Advanced Electronic Materials, 2015, 1, 1500289.	5.1	43
51	Low Density Lipoprotein Detection Based on Antibody Immobilized Self-Assembled Monolayer: Investigations of Kinetic and Thermodynamic Properties. Journal of Physical Chemistry B, 2009, 113, 14405-14412.	2.6	42
52	â€œSwipe and Scanâ€ Integration of sampling and analysis of gunshot metal residues at screen-printed electrodes. Electrochemistry Communications, 2012, 23, 52-55.	4.7	33
53	Modeling, design guidelines, and detection limits of self-powered enzymatic biofuel cell-based sensors. Biosensors and Bioelectronics, 2020, 168, 112493.	10.1	27
54	Skin-interfaced soft microfluidic systems with modular and reusable electronics for in situ capacitive sensing of sweat loss, rate and conductivity. Lab on A Chip, 2020, 20, 4391-4403.	6.0	23

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55	Rapid Capture and Extraction of Sweat for Regional Rate and Cytokine Composition Analysis Using a Wearable Soft Microfluidic System. Journal of Investigative Dermatology, 2021, 141, 433-437.e3.	0.7	17
56	Nanostructured conducting polymer based reagentless capacitive immunosensor. Biomedical Microdevices, 2010, 12, 63-70.	2.8	15
57	Wearable chemical sensors: Opportunities and challenges. , 2016, , .		15
58	Donâ€™t Sweat It: The Quest for Wearable Stress Sensors. Matter, 2020, 2, 795-797.	10.0	11
59	Can peroxygenase and microperoxidase substitute cytochrome P450 in biosensors. Bioanalytical Reviews, 2011, 3, 67-94.	0.2	9
60	Catalytic effects of magnetic and conductive nanoparticles on immobilized glucose oxidase in skin sensors. Nanotechnology, 2021, 32, 375101.	2.6	3
61	Novel Materials-Based Stretchable and Self-Healing Electrochemical Sensors for Wearable Applications. ECS Meeting Abstracts, 2016, , .	0.0	0