

Roozbeh Ghaffari

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

8,204
citations

136950
32
h-index

289244
40
g-index

40
all docs

40
docs citations

40
times ranked

8649
citing authors

#	ARTICLE	IF	CITATIONS
1	A graphene-based electrochemical device with thermoresponsive microneedles for diabetes monitoring and therapy. <i>Nature Nanotechnology</i> , 2016, 11, 566-572.	31.5	1,394
2	A soft, wearable microfluidic device for the capture, storage, and colorimetric sensing of sweat. <i>Science Translational Medicine</i> , 2016, 8, 366ra165.	12.4	933
3	Bio-Integrated Wearable Systems: A Comprehensive Review. <i>Chemical Reviews</i> , 2019, 119, 5461-5533.	47.7	822
4	Materials for multifunctional balloon catheters with capabilities in cardiac electrophysiological mapping and ablation therapy. <i>Nature Materials</i> , 2011, 10, 316-323.	27.5	670
5	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. <i>Science</i> , 2019, 363, .	12.6	521
6	Battery-free, skin-interfaced microfluidic/electronic systems for simultaneous electrochemical, colorimetric, and volumetric analysis of sweat. <i>Science Advances</i> , 2019, 5, eaav3294.	10.3	497
7	Skin-interfaced systems for sweat collection and analytics. <i>Science Advances</i> , 2018, 4, eaar3921.	10.3	303
8	Wearable Sensors for Biochemical Sweat Analysis. <i>Annual Review of Analytical Chemistry</i> , 2019, 12, 1-22.	5.4	259
9	Soft, Skin-Integrated Multifunctional Microfluidic Systems for Accurate Colorimetric Analysis of Sweat Biomarkers and Temperature. <i>ACS Sensors</i> , 2019, 4, 379-388.	7.8	239
10	Waterproof, electronics-enabled, epidermal microfluidic devices for sweat collection, biomarker analysis, and thermography in aquatic settings. <i>Science Advances</i> , 2019, 5, eaau6356.	10.3	208
11	Relation between blood pressure and pulse wave velocity for human arteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 11144-11149.	7.1	193
12	Catheter-integrated soft multilayer electronic arrays for multiplexed sensing and actuation during cardiac surgery. <i>Nature Biomedical Engineering</i> , 2020, 4, 997-1009.	22.5	175
13	A fluorometric skin-interfaced microfluidic device and smartphone imaging module for <i>in situ</i> quantitative analysis of sweat chemistry. <i>Lab on A Chip</i> , 2018, 18, 2178-2186.	6.0	166
14	Highly flexible, wearable, and disposable cardiac biosensors for remote and ambulatory monitoring. <i>Npj Digital Medicine</i> , 2018, 1, 2.	10.9	157
15	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.	6.0	157
16	Wearable sensors for Parkinson's disease: which data are worth collecting for training symptom detection models. <i>Npj Digital Medicine</i> , 2018, 1, 64.	10.9	137
17	Recent progress, challenges, and opportunities for wearable biochemical sensors for sweat analysis. <i>Sensors and Actuators B: Chemical</i> , 2021, 332, 129447.	7.8	112
18	Skin-interfaced microfluidic system with personalized sweating rate and sweat chloride analytics for sports science applications. <i>Science Advances</i> , 2020, 6, .	10.3	110

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19	An on-skin platform for wireless monitoring of flow rate, cumulative loss and temperature of sweat in real time. <i>Nature Electronics</i> , 2021, 4, 302-312.	26.0	110
20	Sweat-activated biocompatible batteries for epidermal electronic and microfluidic systems. <i>Nature Electronics</i> , 2020, 3, 554-562.	26.0	99
21	Soft Wearable Systems for Colorimetric and Electrochemical Analysis of Biofluids. <i>Advanced Functional Materials</i> , 2020, 30, 1907269.	14.9	92
22	Wearable Sensing Systems with Mechanically Soft Assemblies of Nanoscale Materials. <i>Advanced Materials Technologies</i> , 2017, 2, 1700053.	5.8	89
23	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.	10.0	88
24	Soft, skin-interfaced wearable systems for sports science and analytics. <i>Current Opinion in Biomedical Engineering</i> , 2019, 9, 47-56.	3.4	84
25	Soft, skin-interfaced microfluidic systems with integrated immunoassays, fluorometric sensors, and impedance measurement capabilities. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 27906-27915.	7.1	84
26	State of Sweat: Emerging Wearable Systems for Real-Time, Noninvasive Sweat Sensing and Analytics. <i>ACS Sensors</i> , 2021, 6, 2787-2801.	7.8	76
27	Soft, skin-interfaced microfluidic systems with integrated enzymatic assays for measuring the concentration of ammonia and ethanol in sweat. <i>Lab on A Chip</i> , 2020, 20, 84-92.	6.0	67
28	Soft, skin-interfaced sweat stickers for cystic fibrosis diagnosis and management. <i>Science Translational Medicine</i> , 2021, 13, .	12.4	65
29	A Skin-Interfaced, Miniaturized Microfluidic Analysis and Delivery System for Colorimetric Measurements of Nutrients in Sweat and Supply of Vitamins Through the Skin. <i>Advanced Science</i> , 2022, 9, e2103331.	11.2	53
30	Role of data measurement characteristics in the accurate detection of Parkinson's disease symptoms using wearable sensors. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 52.	4.6	49
31	Skin-Interfaced Microfluidic Systems that Combine Hard and Soft Materials for Demanding Applications in Sweat Capture and Analysis. <i>Advanced Healthcare Materials</i> , 2021, 10, e2000722.	7.6	40
32	Balloon catheters with integrated stretchable electronics for electrical stimulation, ablation and blood flow monitoring. <i>Extreme Mechanics Letters</i> , 2015, 3, 45-54.	4.1	38
33	Catheter-Based Systems With Integrated Stretchable Sensors and Conductors in Cardiac Electrophysiology. <i>Proceedings of the IEEE</i> , 2015, 103, 682-689.	21.3	33
34	Augmenting Clinical Outcome Measures of Gait and Balance with a Single Inertial Sensor in Age-Ranged Healthy Adults. <i>Sensors</i> , 2019, 19, 4537.	3.8	28
35	Skin-Interfaced Microfluidic System with Machine Learning-Enabled Image Processing of Sweat Biomarkers in Remote Settings. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	20
36	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.	0.7	17

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37	A biodegradable wireless blood-flow sensor. Nature Biomedical Engineering, 2019, 3, 7-8.	22.5	7
38	Human motion component and envelope characterization via wireless wearable sensors. BMC Biomedical Engineering, 2020, 2, 3.	2.6	7
39	Sweating Rate and Sweat Chloride Concentration of Elite Male Basketball Players Measured With a Wearable Microfluidic Device Versus the Standard Absorbent Patch Method. International Journal of Sport Nutrition and Exercise Metabolism, 2022, 32, 342-349.	2.1	4
40	Development and feasibility of a Configurable Assessment Messaging Platform for Interventions (CAMPI).. Families, Systems and Health, 2021, 39, 19-28.	0.6	1