Roozbeh Ghaffari

List of Publications by Year
in descending order

40 papers	8,204 citations	136885 32 h-index	289141 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. Nature Nanotechnology, 2016, 11, 566-572.	15.6	1,394
2	A soft, wearable microfluidic device for the capture, storage, and colorimetric sensing of sweat. Science Translational Medicine, 2016, 8, 366ra165.	5.8	933
3	Bio-Integrated Wearable Systems: A Comprehensive Review. Chemical Reviews, 2019, 119, 5461-5533.	23.0	822
4	Materials for multifunctional balloon catheters with capabilities in cardiac electrophysiological mapping and ablation therapy. Nature Materials, 2011, 10, 316-323.	13.3	670
5	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. Science, 2019, 363, .	6.0	521
6	Battery-free, skin-interfaced microfluidic/electronic systems for simultaneous electrochemical, colorimetric, and volumetric analysis of sweat. Science Advances, 2019, 5, eaav3294.	4.7	497
7	Skin-interfaced systems for sweat collection and analytics. Science Advances, 2018, 4, eaar3921.	4.7	303
8	Wearable Sensors for Biochemical Sweat Analysis. Annual Review of Analytical Chemistry, 2019, 12, 1-22.	2.8	259
9	Soft, Skin-Integrated Multifunctional Microfluidic Systems for Accurate Colorimetric Analysis of Sweat Biomarkers and Temperature. ACS Sensors, 2019, 4, 379-388.	4.0	239
10	Waterproof, electronics-enabled, epidermal microfluidic devices for sweat collection, biomarker analysis, and thermography in aquatic settings. Science Advances, 2019, 5, eaau6356.	4.7	208
11	Relation between blood pressure and pulse wave velocity for human arteries. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11144-11149.	3.3	193
12	Catheter-integrated soft multilayer electronic arrays for multiplexed sensing and actuation during cardiac surgery. Nature Biomedical Engineering, 2020, 4, 997-1009.	11.6	175
13	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.	3.1	166
14	Highly flexible, wearable, and disposable cardiac biosensors for remote and ambulatory monitoring. Npj Digital Medicine, 2018, 1, 2.	5.7	157
15	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.	3.1	157
16	Wearable sensors for Parkinsonâ€™s disease: which data are worth collecting for training symptom detection models. Npj Digital Medicine, 2018, 1, 64.	5.7	137
17	Recent progress, challenges, and opportunities for wearable biochemical sensors for sweat analysis. Sensors and Actuators B: Chemical, 2021, 332, 129447.	4.0	112
18	Skin-interfaced microfluidic system with personalized sweating rate and sweat chloride analytics for sports science applications. Science Advances, 2020, 6, .	4.7	110

#	Article	IF	Citations
19	An on-skin platform for wireless monitoring of flow rate, cumulative loss and temperature of sweat in real time. Nature Electronics, 2021, 4, 302-312.	13.1	110
20	Sweat-activated biocompatible batteries for epidermal electronic and microfluidic systems. Nature Electronics, 2020, 3, 554-562.	13.1	99
21	Soft Wearable Systems for Colorimetric and Electrochemical Analysis of Biofluids. Advanced Functional Materials, 2020, 30, 1907269.	7.8	92
22	Wearable Sensing Systems with Mechanically Soft Assemblies of Nanoscale Materials. Advanced Materials Technologies, 2017, 2, 1700053.	3.0	89
23	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.	5.2	88
24	Soft, skin-interfaced wearable systems for sports science and analytics. Current Opinion in Biomedical Engineering, 2019, 9, 47-56.	1.8	84
25	Soft, skin-interfaced microfluidic systems with integrated immunoassays, fluorometric sensors, and impedance measurement capabilities. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27906-27915.	3.3	84
26	State of Sweat: Emerging Wearable Systems for Real-Time, Noninvasive Sweat Sensing and Analytics. ACS Sensors, 2021, 6, 2787-2801.	4.0	76
27	Soft, skin-interfaced microfluidic systems with integrated enzymatic assays for measuring the concentration of ammonia and ethanol in sweat. Lab on A Chip, 2020, 20, 84-92.	3.1	67
28	Soft, skin-interfaced sweat stickers for cystic fibrosis diagnosis and management. Science Translational Medicine, 2021, 13, .	5.8	65
29	A Skinâ€Interfaced, Miniaturized Microfluidic Analysis and Delivery System for Colorimetric Measurements of Nutrients in Sweat and Supply of Vitamins Through the Skin. Advanced Science, 2022, 9, e2103331.	5.6	53
30	Role of data measurement characteristics in the accurate detection of Parkinsonâ€™s disease symptoms using wearable sensors. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 52.	2.4	49
31	Skinâ€Interfaced Microfluidic Systems that Combine Hard and Soft Materials for Demanding Applications in Sweat Capture and Analysis. Advanced Healthcare Materials, 2021, 10, e2000722.	3.9	40
32	Balloon catheters with integrated stretchable electronics for electrical stimulation, ablation and blood flow monitoring. Extreme Mechanics Letters, 2015, 3, 45-54.	2.0	38
33	Catheter-Based Systems With Integrated Stretchable Sensors and Conductors in Cardiac Electrophysiology. Proceedings of the IEEE, 2015, 103, 682-689.	16.4	33
34	Augmenting Clinical Outcome Measures of Gait and Balance with a Single Inertial Sensor in Age-Ranged Healthy Adults. Sensors, 2019, 19, 4537.	2.1	28
35	Skinâ€Interfaced Microfluidic System with Machine Learningâ€Enabled Image Processing of Sweat Biomarkers in Remote Settings. Advanced Materials Technologies, 2022, 7, .	3.0	20
36	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.	0.3	17

#	Article	IF	Citations
37	A biodegradable wireless blood-flow sensor. Nature Biomedical Engineering, 2019, 3, 7-8.	11.6	7
38	Human motion component and envelope characterization via wireless wearable sensors. BMC Biomedical Engineering, 2020, 2, 3.	1.7	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.	1.0	4
40	Development and feasibility of a Configurable Assessment Messaging Platform for Interventions (CAMPI).. Families, Systems and Health, 2021, 39, 19-28.	0.4	1