Best Paper Awards

A set of fifteen papers were nominated for the best-paper awards in Years 2021 and 2022, based on the ratings and comments from the paper reviewers as well as the associate editors during the paper-selection process. Congratulations to our best-paper-award who are listed (in no particular order) below.

Tumor-on-a-chip: from bioinspired design to biomedical application

Xingxing Liu, Jiaru Fang, Shuang Huang, Xiaoxue Wu, Xi Xie, Ji Wang, Fanmao Liu, Meng Zhang, Zhenwei Peng & Ning Hu

https://www.nature.com/articles/S41378-021-00277-8

Portable and wearable self-powered systems based on emerging energy harvesting technology

Chen Xu, Yu Song, Mengdi Han & Haixia Zhang

https://www.nature.com/articles/S41378-021-00248-Z

High-resolution two-photon polymerization: the most versatile technique for the fabrication of microneedle arrays

Zahra Faraji Rad, Philip D. Prewett & Graham J. Davies

https://www.nature.com/articles/S41378-021-00298-3

Recent progress in silk fibroin-based flexible electronics

Dan-Liang Wen, De-Heng Sun, Peng Huang, Wen Huang, Meng Su, Ya Wang, Meng-Di Han, Beomjoon Kim, Juergen Brugger, Hai-Xia Zhang & Xiao-Sheng Zhang

https://www.nature.com/articles/S41378-021-00261-2

A comparative review of artificial muscles for microsystem applications

Mayue Shi & Eric M. Yeatman

https://www.nature.com/articles/S41378-021-00323-5
MEMS inductor fabrication and emerging applications in power electronics and neurotechnologies

Hoa Thanh Le, Rubaiyet I. Haque, Ziwei Ouyang, Seung Woo Lee, Shelley I. Fried, Ding Zhao, Min Qiu & Anpan Han

https://www.nature.com/articles/S41378-021-00275-W

Continuous monitoring of diabetes with an integrated microneedle biosensing device through 3D printing

Yiqun Liu, Qi Yu, Xiaojin Luo, Li Yang & Yue Cui

https://www.nature.com/articles/S41378-021-00302-W

A thin-film temperature sensor based on a flexible electrode and substrate

Zhaojun Liu, Bian Tian, Bingfei Zhang, Jiangjiang Liu, Zhongkai Zhang, Song Wang, Yunyun Luo, Libo Zhao, Peng Shi, Qijing Lin & Zhuangde Jiang

https://www.nature.com/articles/S41378-021-00271-0

Wireless, battery-free, and fully implantable electrical neurostimulation in freely moving rodents

Alex Burton, Sang Min Won, Arian Kolahi Sohrabi, Tucker Stuart, Amir Amirhossein, Jong Uk Kim, Yoonseok Park, Andrew Gabros, John A. Rogers, Flavia Vitale, Andrew G. Richardson & Philipp Gutruf

https://www.nature.com/articles/S41378-021-00294-7

Electrochemical micro-aptasensors for exosome detection based on hybridization chain reaction amplification

Wenfen Zhang, Zhenhua Tian, Shujie Yang, Joseph Rich, Shuaiguo Zhao, Mikael Klingeborn, Po-Hsun Huang, Zhishang Li, Alexander Stout, Quinn Murphy, Edward Patz, Shusheng Zhang, Guozhen Liu & Tony Jun Huang

https://www.nature.com/articles/S41378-021-00293-8
Highly integrated watch for noninvasive continual glucose monitoring

Tianrui Chang, Hu Li, Nianrong Zhang, Xinran Jiang, Xinge Yu, Qingde Yang, Zhiyuan Jin, Hua Meng & Lingqian Chang

https://www.nature.com/articles/s41378-022-00355-5

Plasmonic–perovskite solar cells, light emitters, and sensors

Bin Ai, Ziwei Fan & Zi Jing Wong

https://www.nature.com/articles/s41378-021-00334-2

Raindrop energy-powered autonomous wireless hyetometer based on liquid–solid contact electrification

Chaoqun Xu, Xianpeng Fu, Chengyu Li, Guoxu Liu, Yuyu Gao, Youchao Qi, Tianzhao Bu, Yuanfen Chen, Zhong Lin Wang & Chi Zhang

https://www.nature.com/articles/s41378-022-00362-6

Patient-derived pancreatic cancer-on-a-chip recapitulates the tumor microenvironment

Muhammad R. Haque, Caitlin R. Wessel, Daniel D. Leary, Chengyao Wang, Abhinav Bhushan & Faraz Bishehsari

https://www.nature.com/articles/s41378-022-00370-6

Microengineered platforms for characterizing the contractile function of in vitro cardiac models

Wenkun Dou, Manpreet Malhi, Qili Zhao, Li Wang, Zongjie Huang, Junhui Law, Na Liu, Craig A. Simmons, Jason T. Maynes & Yu Sun

https://www.nature.com/articles/s41378-021-00344-0