

Dr. Sunita Mehta

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<https://scholar.google.co.in/citations?user=xyweKu4AAAAJ&hl=en>

<https://publons.com/researcher/1267985/mehta-sunita/>

*Potentially looking for industrial and clinical collaborations.

*Enthusiastic and sincere students are most welcome for internship or thesis guidance.

Academic collaborators- IIT Kanpur, IIT Bombay, IIT Delhi, IISER Mohali, INST Mohali, Punjab University Chandigarh and Northwestern University, IL, US.

Research Expertise – Flexible printable devices for electronics and healthcare applications (Synthesis, fabrication, characterization as well as demonstration – from lab bench to practical use), Bio-mimicking, Renewable Energy Sources.

Current Research Area- Micro-fluidics, electrochemical sensors, colorimetric sensors and tactile sensors for healthcare monitoring applications.

Accomplishments-

PATENTS

- 1) **“A patterned polymeric organosilicon compound and methods for their preparation and use.”** Sunita Mehta, Chithra Parameswaran, Dipti Gupta; Indian patent (**Filed with Indian patent Application No.: 201821012708**).
- 2) **“Microbe-based masters for micro contact printing and methods for their preparation and use.”** Deepak Gupta, Balaji Prakash, Sunita Mehta & Saravanan Murugeson. PCT Appl. No. PCT/IB2014/059776, 14 March 2014 (priority date: 17 May 2013). International publication number WO 2014/184687 A1.

PUBLICATIONS

- 1) **“Sweat-activated microfluidic batteries as biocompatible, flexible energy sources for epidermal electronics”** - A. J. Bandothkar, S. P. Lee, I. Huang, W. Li, S. Wang, C.-J. Su, W. J. Jeang, T. Hang, S. Mehta, N. Nyberg, P. J. Gutruf, J. Choi, J. Koo, J. T. Reeder, R. Tseng, R. Ghaffari and J. A. Rogers ; *Nature Electronics* (2020). <https://doi.org/10.1038/s41928-020-0443-7>. **IF- 27.5**

- 2) **“Fabrication of thermo-chromism based temperature sensors using organic-inorganic composite system.”** Sunita Mehta, Ashok Kushwaha, Ravinder Reddy Kasannagar, Dipti Gupta; *RSC advances*, **10**, 21270-21276 (2020). IF-3.049
- 3) **“Mechano-acoustic sensing of physiological processes and body motions using soft, wireless devices interfaced to the skin at the suprasternal notch”** KunHyuck Lee, Xiaoyue Ni, Jong Yoon Lee, Hany Arafa, David Pe, Dong Hyun Kim, Ha Uk Chung, Sunita Mehta, Matt Pharr, Andreas Tzavelis, Jonathan T. Reeder, Ivy Huang, Yujun Deng, Zhaoqian Xie*, Charles R. Davies, Yonggang Huang, John A. Rogers – *Nature Biomed Eng*, **4**, 148-158 (2020). IF- 17.135
- 4) **“Soft, Skin-Interfaced Microfluidic Systems with Passive Galvanic Stopwatches for Precise Chronometric Sampling of Sweat”**, Amay J. Bandodkar, Jungil Choi, Stephen Lee, William J. Jeang, Prophecy Agyare, Philipp Gutruf, Siqing Wang, Sunita Mehta, Savanna Ruiz, and John A. Rogers- *Advanced Materials*, **1902109** (2019). IF-25.809
- 5) **“Fully printed organic solar cells – a review of techniques, challenges and their solutions”** Sivakumar Ganesan, Sunita Mehta, Dipti Gupta- *Optoelectronics Review*, **27,298** (2019). IF-1.438
- 6) **“A novel living ink based on *Saccharomyces Cerevisiae* for screen printing process and its applicability in producing braille text dots.”** Sunita Mehta, Saravanan Murugeson, Balaji Prakash, Deepak ; *Materials Today communications*, **15**, 325 (2018). IF- 2.678
- 7) **“Development of process for generating three dimensional microbial patterns amenable for engineering applications.”** Sunita Mehta, Saravanan Murugeson, Balaji Prakash, Deepak; *RSC advances*, **6**, 22586 (2016). IF-3.049
- 8) **“Microbes based printing for fabrication of microlenses for organic light emitting diodes.”** Sunita Mehta, Saravanan Murugeson, Balaji Prakash, Deepak; *Organic Electronics*, **35**, 199(2016). IF-3.310
- 9) **“Fabrication of three dimensional patterns of wide dimensional range using microbes and their applications.”** Sunita Mehta, Saravanan Murugeson, Balaji Prakash, Deepak; *Scientific Reports*, **5**, 15416 (2015). IF-4.011
- 10) **“Optimal Multiferroic Properties and Enhanced Magnetoelectric Coupling in SmFeO₃-PbTiO₃ Solid Solutions.”** Anupinder Singh , Ishan Choudhary , Sunita Mehta , Sajjan Dahiya , Chitsimranjeet Singh Walia , K. K. Raina and Ratnamala Chatterjee; *Journal of Applied Physics*, **107**, 084106 (2010). IF-2.328