

# Materials Advances

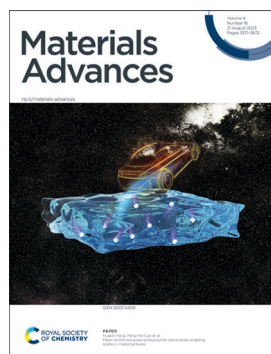
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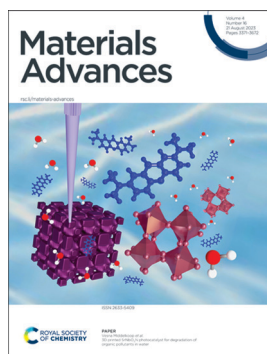
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**Inside cover**  
See Vesna Middelkoop *et al.*, pp. 3461–3472. Image reproduced by permission of Antonio Iborra-Torres & Vesna Middelkoop from *Mater. Adv.*, 2023, 4, 3461.

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### Silicon quantum dots: surface matter, what next?

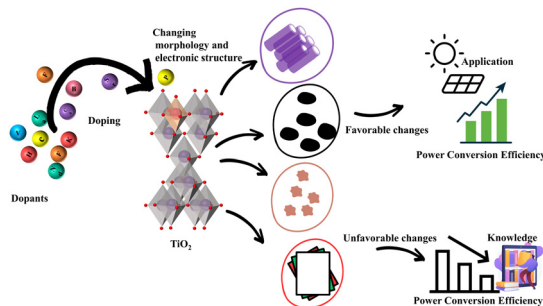
Deski Beri



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### Quantitative framework development for understanding the relationship between doping and photoelectrochemical energy conversion of TiO<sub>2</sub>

Aparna Markose, Debanita Das and Prasanth Ravindran\*



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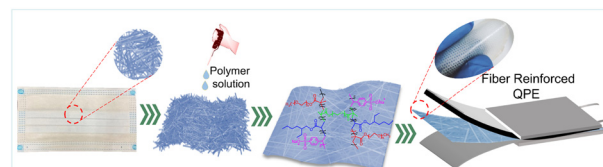
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### Fiber-reinforced quasi-solid polymer electrolytes enabling stable Li-metal batteries

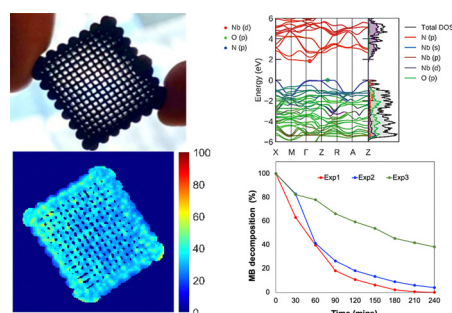
Shilun Gao, Youjia Zhang, Mengxiang Ma, Zhenxi Li, Zongxue Sun, Ming Tian, Huabin Yang\* and Peng-Fei Cao\*



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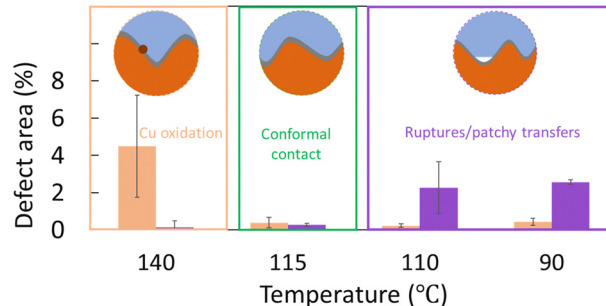
Antonio Iborra-Torres, Matej Huš, Kiem Nguyen, Antonis Vamvakeros, Muhammad Tariq Sajjad, Steven Dunn, Myrjam Mertens, Simon Jacques, Andrew M. Beale, Blaž Likozar, Geoffrey Hyett, Suela Kellici and Vesna Middelkoop\*



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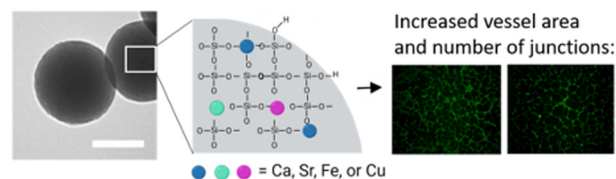
Pavan Chaturvedi, Nicole K. Moehring, Thomas Knight, Rahul Shah, Ivan Vlasiouk and Piran R. Kidambi\*



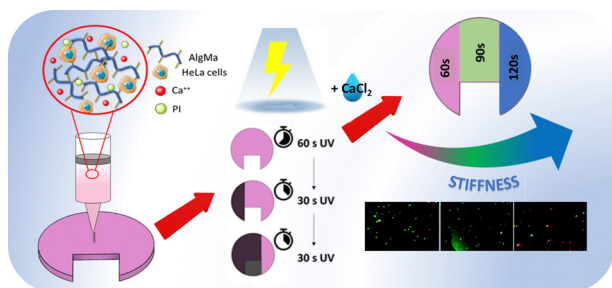
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### Laser-based ion doping is a suitable alternative to dope biologically active ions into colloidal bioglass nanoparticles

Pichaporn Sutthavas, Matthias Schumacher, Martyna Nikody, Vijayanthi Ramesh, Jurij Jakobi, Elizabeth R. Balmayor, Pamela Habibovic, Christoph Rehbock, Stephan Barcikowski\* and Sabine van Rijt\*



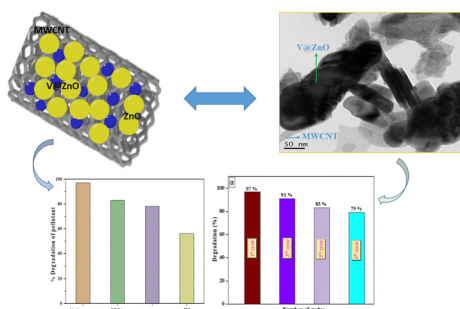
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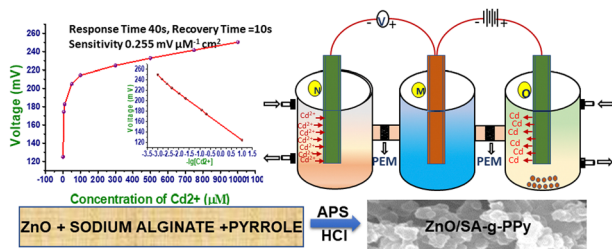
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Mohtaram Danish, Ziyaur Rasool, Haider Iqbal, Reesha Fatima, Shubham Kumar and Mohammad Muneer\*

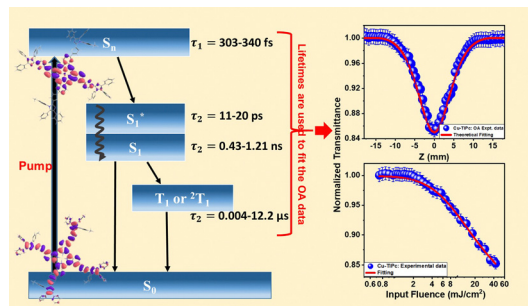
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Sandeep Verma, Ashok K. Sharma\* and Saroj K. Shukla\*

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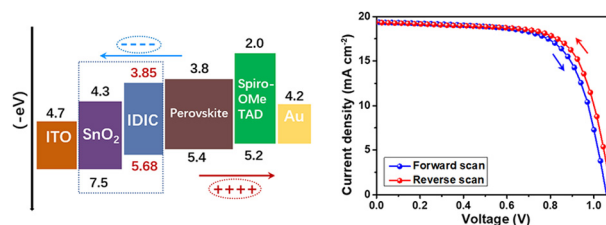
Md Soif Ahmed, Kalavala Shivaprakash Srivishnu, Chinmoy Biswas, Dipanjan Banerjee, Prabhakar Chetti, Venugopal Rao Soma, Lingamallu Giribabu\* and Sai Santosh Kumar Raavi\*



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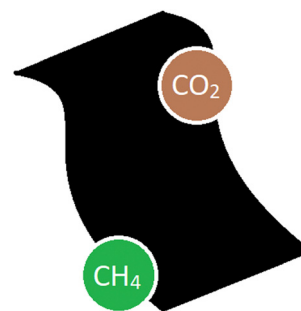
Zhihai Liu, Lei Wang, Hao Zhao, Yibin Wei, Xiaoyin Xie\* and Ping Chen\*



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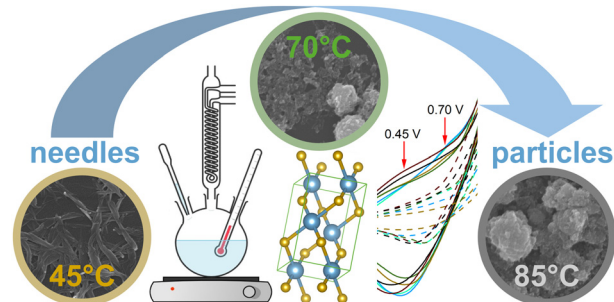
Thria Alkhalidi, L. Scott Blankenship and Robert Mokaya\*



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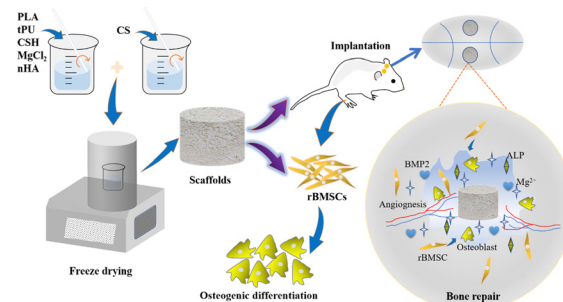
Yujiang Zhu, Carolina Vigil-Hernandez, Curran Kalha, Nathalie Kanchena Fernando, Steve Firth, Gemma-Louise Davies, Katarzyna Bialas, Despina Moschou and Anna Regoutz\*



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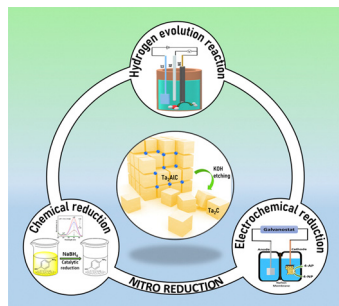
### A PLA-tPU based magnesium ion incorporated CSH/nHA bioactive porous composite scaffold for critical bone defect repair

Zhi Shi, Guobin Huang, Zhongming Li, Zhenkai Lou, Zhiqiang Gong, Xin Wang, Chengyong Li\* and Bing Wang\*





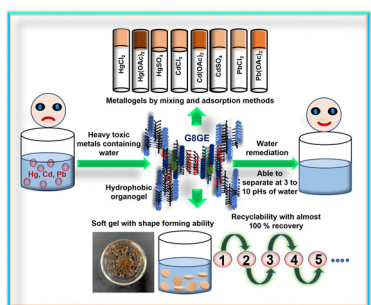
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Aathilingam Vijayaprabakaran and Murugavel Kathiresan\*

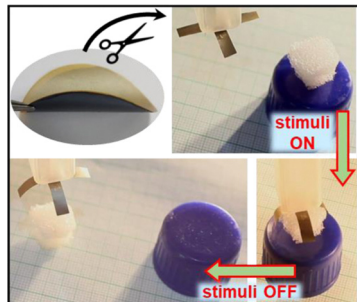
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Reena Kyarikwal, Ritika Munjal, Probal Nag, Sivaranjana Reddy Vennapusa and Suman Mukhopadhyay\*

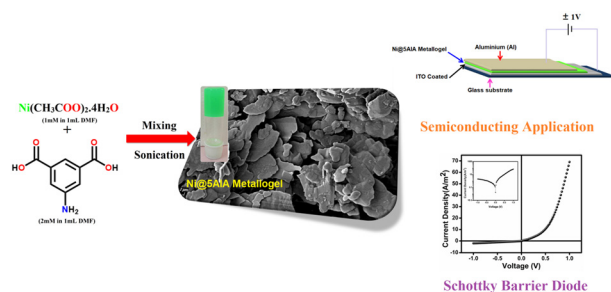
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Partha Pratim Saikia, Priyanku Garg, Kiran Mayawad, Tumpa Paul, Arindom Bikash Neog, Bhaskar Jyoti Sarmah, Kalyan Raidongia and Raj Kumar Gogoi\*

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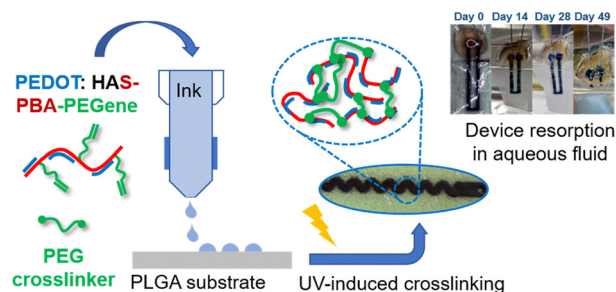
Baishakhi Pal, Subhendu Dhibar,\* Ritam Mukherjee, Subham Bhattacharjee, Partha Pratim Ray\* and Bidyut Saha\*



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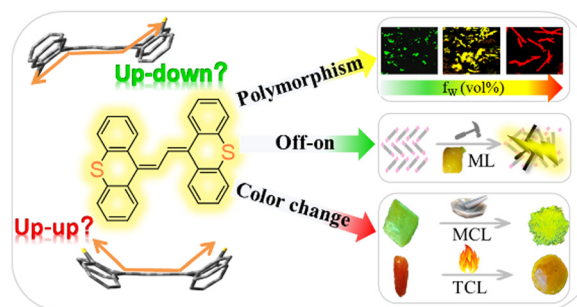
Maxime Leprince, Simon Regal, Pascal Mailley, Fabien Sauter-Starace, Isabelle Texier\* and Rachel Auzély-Velty



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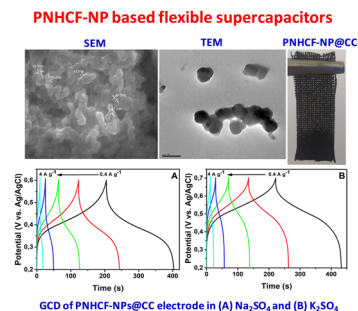
Nengni Xu, Wenhua Xu, Meng Sun, Yi Yuan, Xinjun Luan,\* Ying Wang and Hui Wang\*



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L. M. Samyn, T. S. Lessa, R. Suresh Babu,\* A. Kalaivani, T. M. Barbosa and A. L. F. de Barros



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Yuliya Yapontseva, Valeriy Kublanovsky,\* Tetyana Maltseva, Yuri Troshchenkov and Oleksii Vyshnevskiy

