

# RSC

## Applied Polymers

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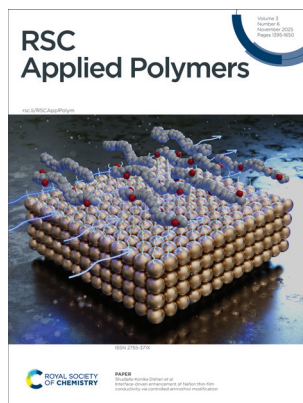
### IN THIS ISSUE

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**Cover**  
See Masaaki Akamatsu, Hideki Sakai *et al.*, pp. 1452–1458.

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**Inside cover**  
See Shudipto Konika Dishari *et al.*, pp. 1459–1473.

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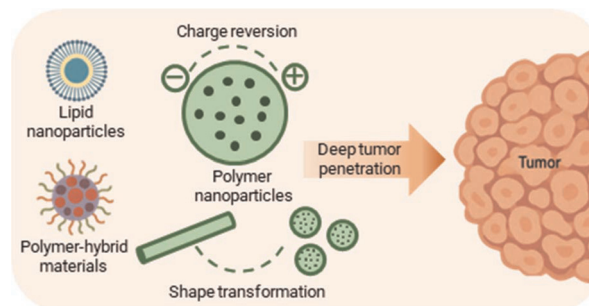
Illustration by Joel Brehm © 2025, Board of Regents of the University of Nebraska.

### REVIEWS

1403

#### Nanocarrier strategies for deep tumour penetration

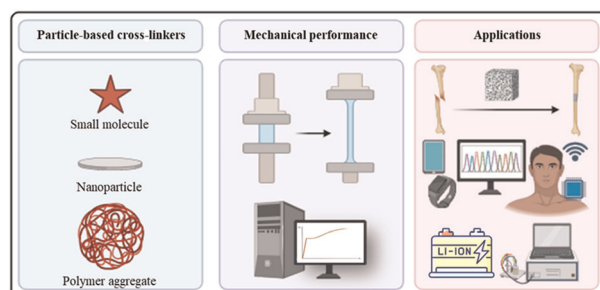
Jinbo Zhang, Guanjiang Wu and Valentin A. Bobrin\*



1428

#### Recent advances in polymeric materials with exceptional mechanical performance achieved via multiple hydrogen-bonded networks

Pouya Rajaei, Ishara Wijesinghe, Zhiyong Li and Cheng Yan\*



# RSC Applied Polymers

GOLD  
OPEN  
ACCESS

The application of polymers,  
both natural and synthetic

Interdisciplinary and open access

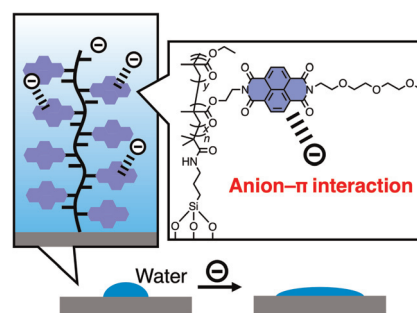
[rsc.li/RSCApplPolym](https://rsc.li/RSCApplPolym)

Fundamental questions  
Elemental answers

1452

### Solute-induced wettability control at naphthalenediimide polymer brushes *via* anion- $\pi$ interactions

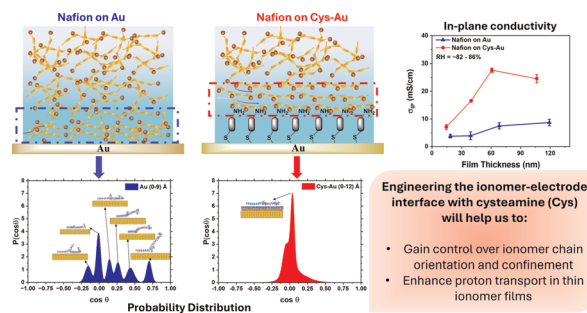
Masaaki Akamatsu,\* Haduki Nakahara, Ayumi Kimura, Kyosuke Arakawa, Shinsuke Ifuku, Kenichi Sakai and Hideki Sakai\*



1459

### Interface-driven enhancement of Nafion thin-film conductivity *via* controlled aminothiols modification

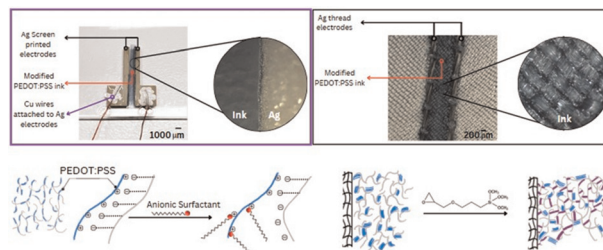
Karen Acurio-Cerda, Oghenetega Allen Obewhere, Golam Azom, Revati Kumar and Shudipto Konika Dishari\*



1474

### Enhanced sensitivity and stability of wearable temperature sensors: a novel approach using inkjet printing

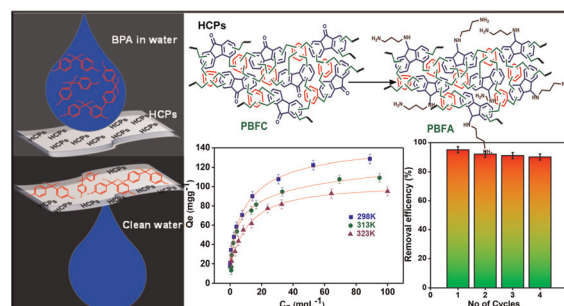
Milad Ghalamboran,\* Judith Castillo-Rodriguez,\* Camille Anne Javonillo, Sina Tahbaz, Bryan Koivisto,\* Gerd Grau\* and Parnian Majd



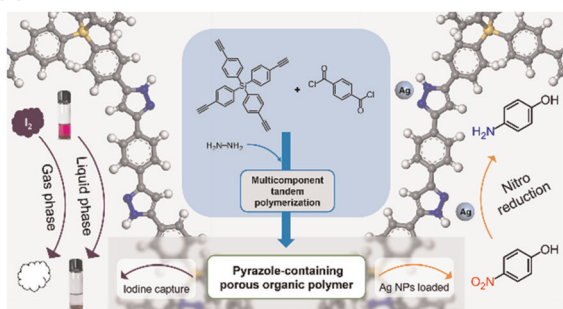
1482

### Post-synthetic amination of porous hypercrosslinked polymer for the adsorptive removal of bisphenol-A from water

Athira Rajasekharan Sujatha, Saumya Krishnan and Chettiyam Veetil Suneesh\*



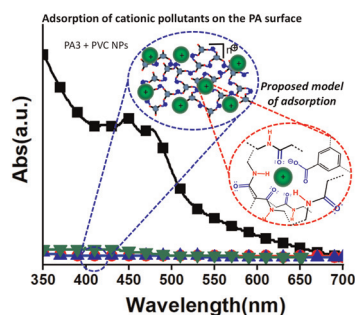
1495



### Multicomponent tandem polymerization for the preparation of a pyrazole-containing porous organic polymer for iodine capture and the nitro reduction reaction

Xulin Liang, Bingyan Zhou, Qixiang Ma, Shengyu Feng, Dengxu Wang\* and Hongzhi Liu

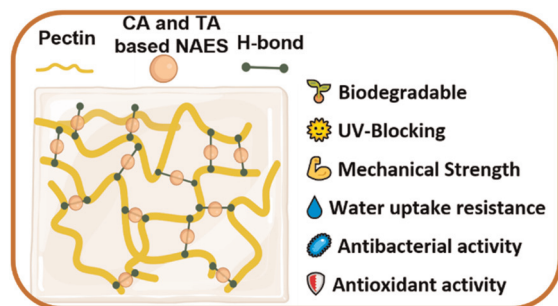
1508



### Structure–function correlation of branched and linear polyaramides for the removal of pollutants from water

Gomathi Mahadevan and Suresh Valiyaveetil\*

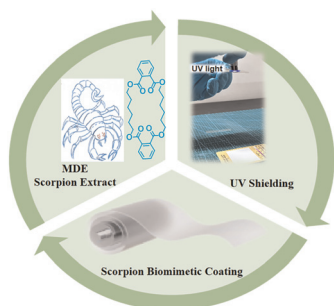
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### Fabrication of biodegradable and active pectin-based films with enhanced properties by the incorporation of natural eutectic solvents

Marianela Zoratti, Pablo A. Mercadal,\* Paola A. Gimenez, Matias L. Picchio\* and Agustin González\*

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### Scorpion-inspired transparent, antibacterial, UV shielding, and self-healing fluorescence polymer materials

Wenjin Wu, Jie Dong, Yingxin Shen, Yijia Yang, Yingliang Wu,\* Xiaojuan Liao\* and Kun Huang\*

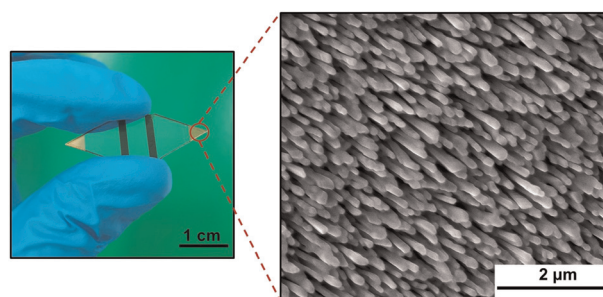


## PAPERS

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### Light-induced foldable materials with 3D-gold nanorod assemblies enable large area plasmonic hot-spot generations

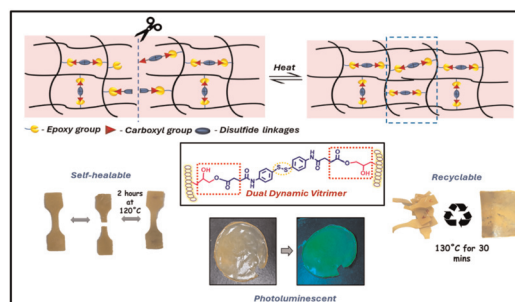
Munire Derebasi, Gorkem Liman, Kubra Ozkan Hukum, Emrehan Yildiz, Poyraz Ada Demirel and Gokhan Demirel\*



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### Design of a dual dynamic elastomeric vitrimer based on disulfide metathesis and transesterification reactions

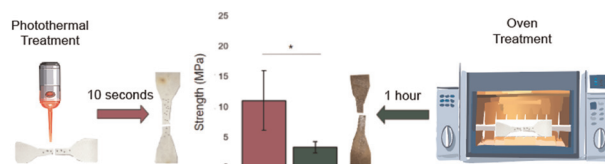
Bhavya Parameswaran, Tuhin Subhra Pal and Nikhil K. Singha\*



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### Rapid photothermal curing of PDMS on paper

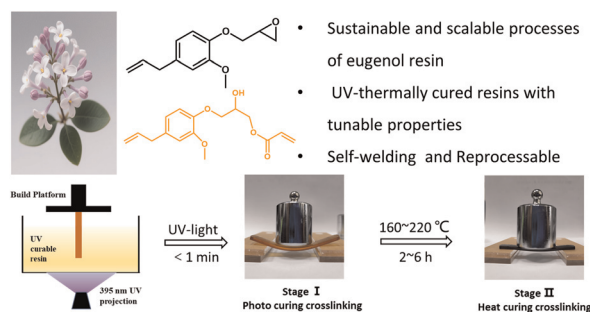
Alessandra P. Blasone, Anthony P. Katona and Benjamin J. Lear\*



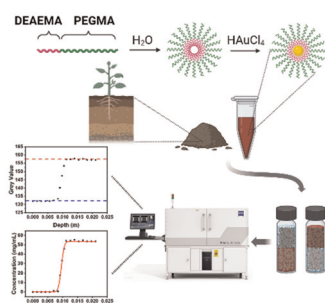
1585

### Sustainable and efficient preparation of eugenol-based resin and its application in UV-thermally cured 3D printing

Jieyuan Zheng, Xingfen Huang, Pingwei Liu, Wenjun Wang\* and Hong Fan\*



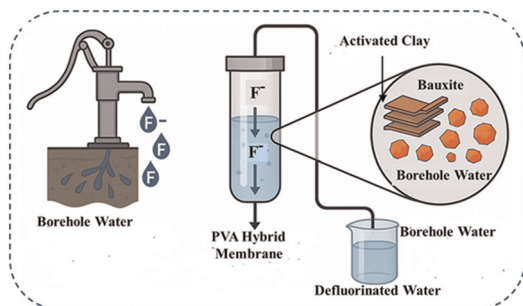
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### A micelle-templated nanoparticle contrast agent enables dynamic microscale X-ray computed tomography imaging of the soil aqueous phase

Shuchen Wang, Anna P. Constantinou, Guanglei Zhang, Yihui Zhang, Mohammad Javad Shojaei, Bo Zhou, Davey L. Jones, Tiina Roose, Martin J. Blunt, Theoni K. Georgiou and Iain E. Dunlop\*

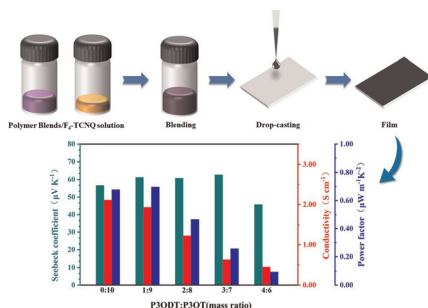
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### Defluorination of borehole water using activated clay and bauxite-laden polyvinyl alcohol hybrid membranes

Andrews Ayim Oduro, Wisdom Selassie Seaneay, Kodwo Miezah, William Wilson Anku and Eric Selorm Agorku\*

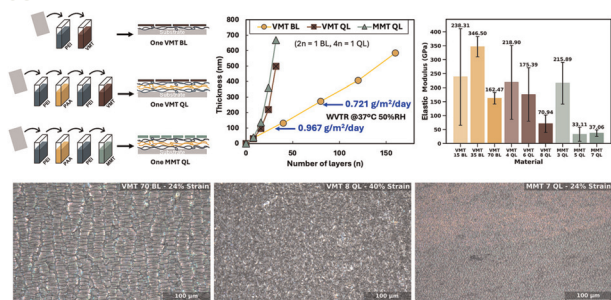
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### Electrical and thermoelectric properties of a poly(3-(2-octyldodecyl)thiophene)/poly(3-octylthiophene)/2,3,5,6-tetrafluoro-7,7',8,8'-tetracyanoquinodimethane viscoelastic polymer blend doping system

Roujun Chen, Zijian Yin, Zhongming Chen\* and Chengjun Pan\*

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### Tailorability of moisture barrier and mechanical performance in clay-based multilayer nanocomposite thin films

Rahul Manna, Sarah G. Fisher, Margaret J. Karim, Darrell Setiawan, Alexandra V. Moran, Jaime C. Grunlan\* and Kyungjin Kim\*

