

# RSC Mechanochemistry

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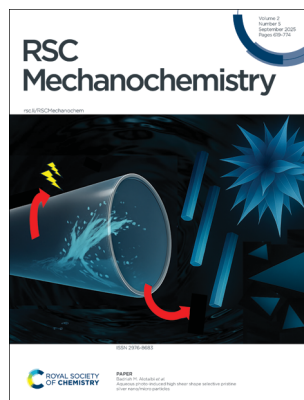
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## IN THIS ISSUE

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**Cover**  
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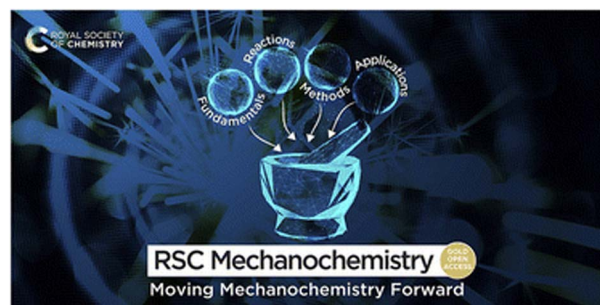
**Inside cover**  
See Badriah M. Alotaibi *et al.*, pp. 653–661. Image reproduced by permission of Badriah M. Alotaibi and Colin L. Raston from *RSC Mechanochem.*, 2025, 2, 653.

## EDITORIAL

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### Moving mechanochemistry forward: programming force-induced responses into macromolecular systems

Kerstin G. Blank\* and Robert Göstl\*

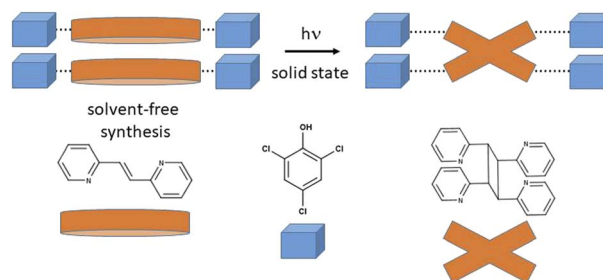


## COMMUNICATIONS

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### Dry-vortex grinding facilitates a [2 + 2] cycloaddition reaction that triggers a cascade-like reaction that improves the yield under substoichiometric conditions

Angela A. Colmanet, Daniel K. Unruh and Ryan H. Groeneman\*



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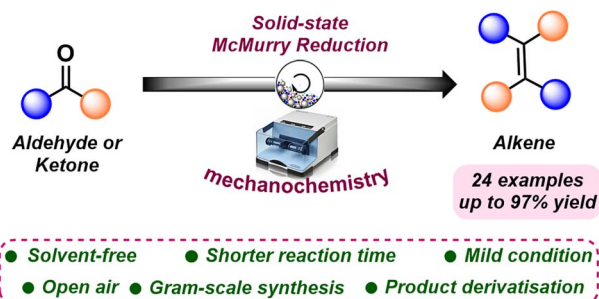
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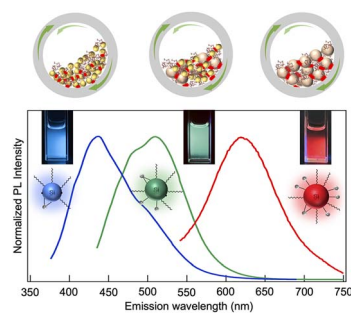
**Mechanochemical McMurry reaction**Sayan K. Jana, Sakshi Ajay Shirsath,  
Debjyoti Bhattacharjee, Pramod Kumar and Biplab Maji\*

## PAPERS

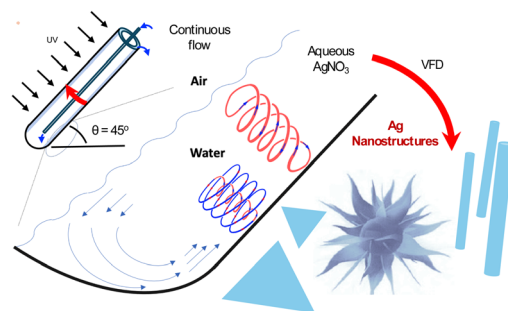
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**Photoluminescence evolution of functional silicon quantum dots assembled *via* a sustainable mechanochemical process**

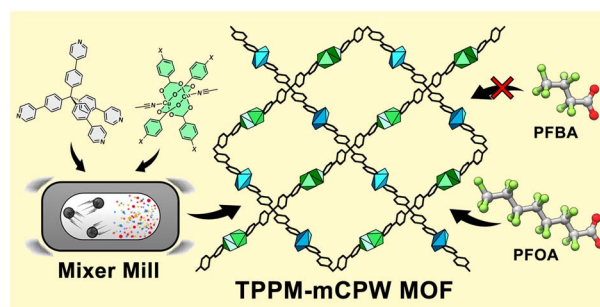
Yuping Xu, Yunzi Xin and Takashi Shirai\*



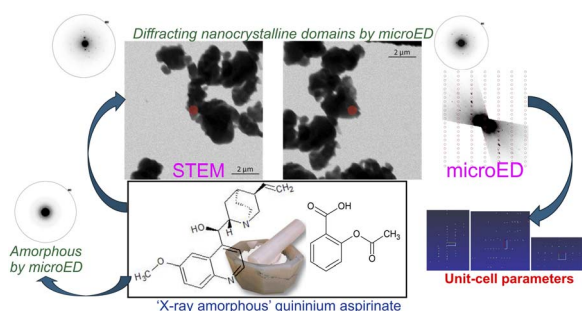
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**Aqueous photo-induced high shear shape selective pristine silver nano/micro particles**Badriah M. Alotaibi, Chengyi Liu, Xianjue Chen  
and Colin L. Raston\*

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**Fluorination of mechanochemically synthesized metal–organic frameworks for PFAS adsorption in water**Danilo Marchetti, Enrico Dalcanale, Roberta Pinalli,  
Mauro Gemmi, Alessandro Pedrini\* and Chiara Massera\*

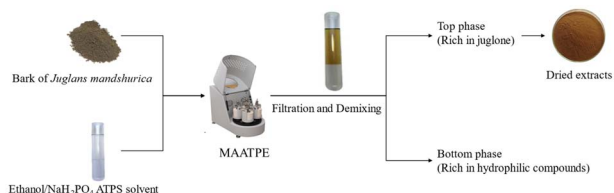
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### Amorphous quininium aspirinate from neat mechanochemistry: diffracting nanocrystalline domains and quick recrystallization upon exposure to solvent vapours

Silvina Pagola,<sup>\*</sup> James Howard, Johannes Merkelbach and Danny Stam

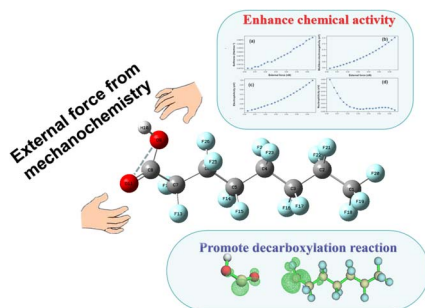
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### Mechanochemistry assisted aqueous two-phase extraction: an efficient technique to extract high-purity juglone from the bark of *Juglans mandshurica*

Shuang Wei, Xinbiao Zhou and Jun Xi<sup>\*</sup>

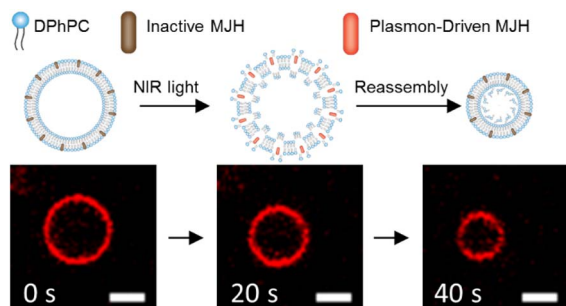
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### How external forces affect the degradation properties of perfluorooctanoic acid in mechanochemical degradation: a DFT study

Chuan Wang,<sup>\*</sup> Cheng Yang, Jie Wu, Ziqiu Wang and Kun Yang

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### Mechanism of plasmon-driven molecular jackhammers in mechanical opening and disassembly of membranes

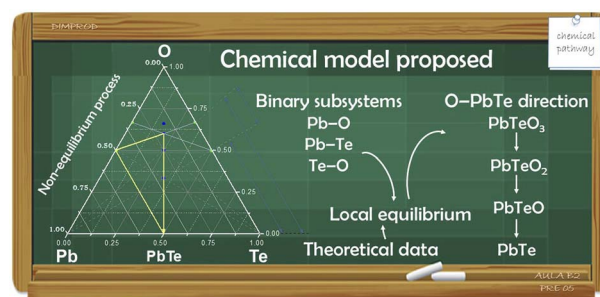
Ciceron Ayala-Orozco,<sup>\*</sup> Vardan Vardanyan, Katherine Lopez-Jaime, Zicheng Wang, Jorge M. Seminario,<sup>\*</sup> Anatoly B. Kolomeisky<sup>\*</sup> and James M. Tour<sup>\*</sup>



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## Chemical models to map the transformation from precursors to semiconductor materials at non-equilibrium conditions

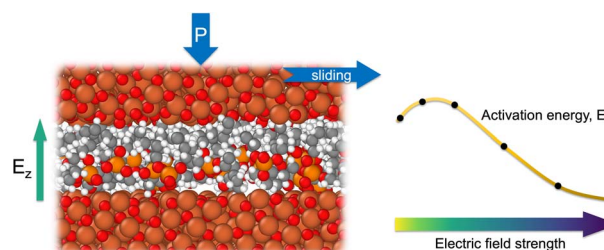
Hugo Rojas-Chávez\*



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## Mechanochemistry of phosphate esters with external electric fields

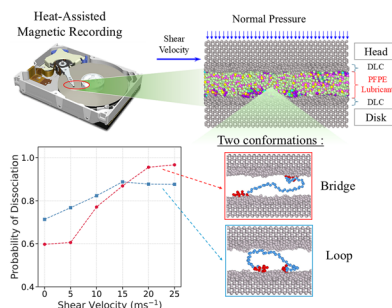
Zhaoran Zhu\* and James P. Ewen\*



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## ReaxFF molecular dynamics study of mechanochemical degradation of PFPE lubricants on DLC in heat-assisted magnetic recording

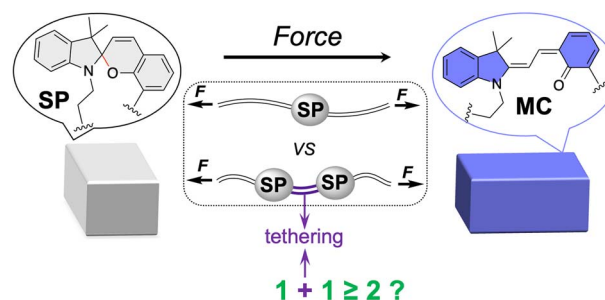
Himanshu Shekhar, Shota Uchiyama, Yuxi Song, Hedong Zhang,\* Kenji Fukuzawa, Shintaro Itoh and Naoki Azuma



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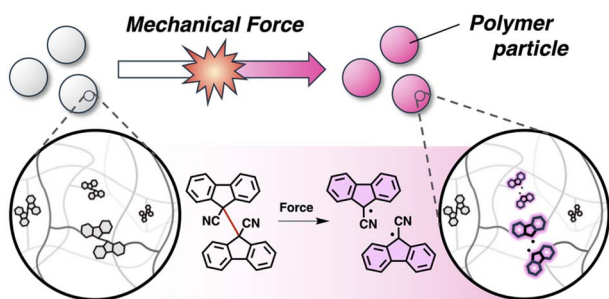
## Amplification of spiropyran mechanophore activation in bulk polymers through a tethering strategy

Sanjit Narendran, Zhenghao Zhai and Yangju Lin\*



## PAPERS

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### Mechanochromic polymer particles crosslinked by a radical-type mechanochromophore

Kengo Ogasawara, Daisuke Kuromiya, Takuma Watabe, Akira Takahashi, Daisuke Aoki and Hideyuki Otsuka\*

## CORRECTIONS

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### Correction: Mechanochemical synthesis of eucairite CuAgSe and investigation of physicochemical and transport properties

Dáša Drenčaková, Marcela Achimovičová,\* Matej Baláž, Jiří Navrátil, Erika Tóthová, Maksym Lisnichuk, Jaroslav Briančin, Viktor Puchý and Tomáš Plecháček

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### Correction: Utilizing an attritor mill for solvent-free mechanochemical synthesis of *rac*-ibuprofen:nicotinamide co-crystals

Sarah Triller, Frederik Winkelmann, Jan-Hendrik Schöbel and Michael Felderhoff\*

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### Correction: Mechanochemical kilogram-scale synthesis of *rac*-ibuprofen:nicotinamide co-crystals using a drum mill

Jan-Hendrik Schöbel, Frederik Winkelmann, Joel Bicker and Michael Felderhoff\*

