

# RSC Applied Polymers

GOLD  
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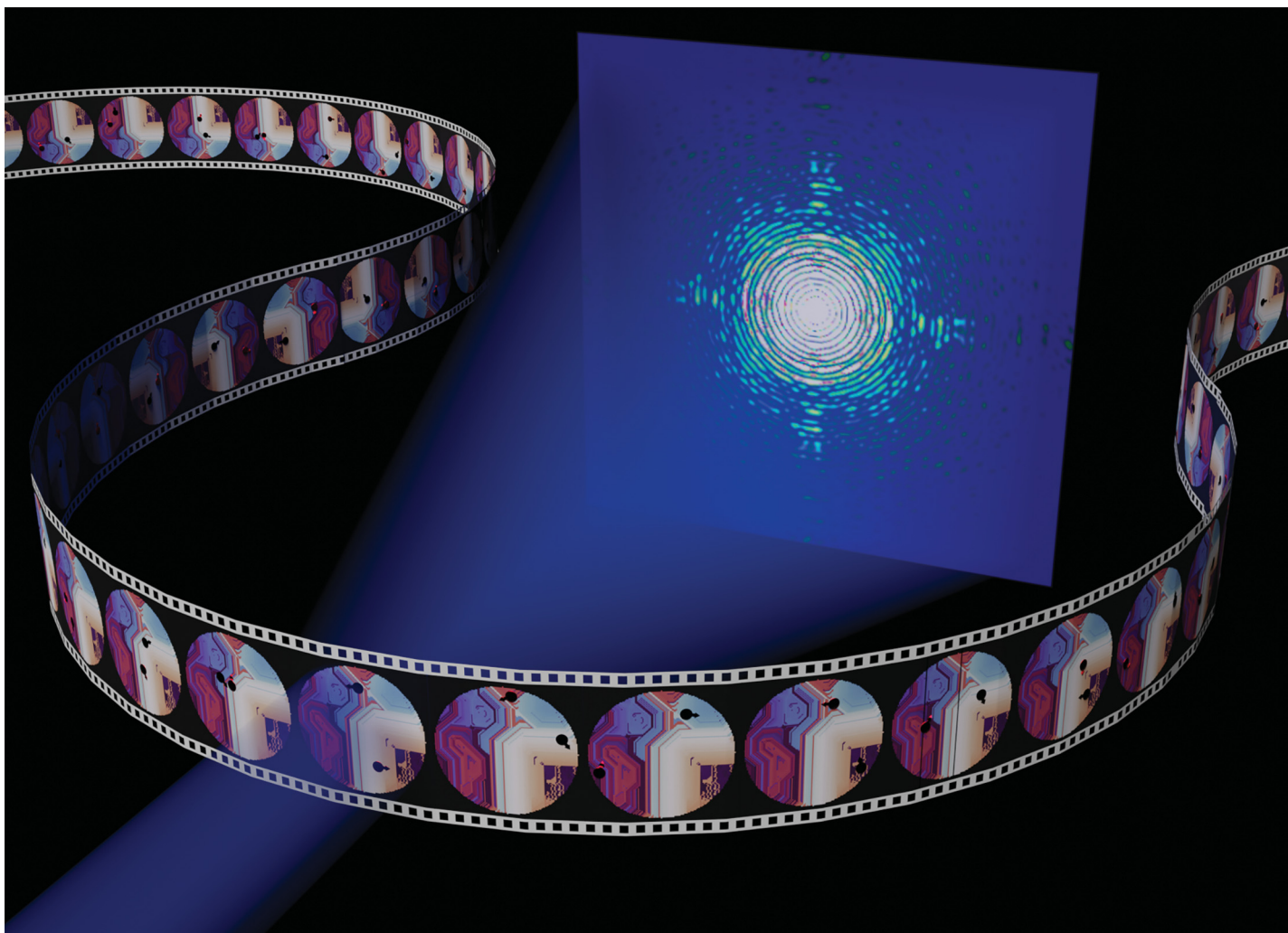
The application of polymers,  
both natural and synthetic

Interdisciplinary and open access

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

Fundamental questions  
Elemental answers





Showcasing research from Professor Allan S. Johnson's laboratory, Ultrafast Science of Quantum Materials group, IMDEA Nanociencia, Madrid, Spain.

#### Coherent X-ray imaging of stochastic dynamics

In this work, we demonstrate a method to separate the contribution of stochastic and deterministic contributions to a coherent X-ray scattering pattern, returning real space images of the deterministic contributions and the momentum spectrum of the stochastic contributions.

We demonstrate this approach by numerically simulating the imaging of different typical and important classes of fluctuations, like polaron separation, vortex nucleation or fluctuating domain walls.

#### As featured in:



See Arnab Sarkar and Allan S. Johnson, *Mater. Adv.*, 2024, 5, 6378.