

# Advance your career in science

with professional recognition that showcases  
your **experience, expertise and dedication**

## Stand out from the crowd

Prove your commitment  
to attaining excellence in  
your field

## Gain the recognition you deserve

Achieve a professional  
qualification that inspires  
confidence and trust

## Unlock your career potential

Apply for our professional  
registers (RSci, RSciTech)  
or chartered status  
(CChem, CSci, CEnv)

## Apply now

[rsc.li/professional-development](https://www.rsc.li/professional-development)



Newtonian ( $Wi = 0$ )



Viscoelastic ( $Wi = 15$ )



Viscoelastic ( $Wi = 50$ )



Research from the Department of Chemical Engineering,  
Indian Institute of Technology Ropar.

Electrokinetic and electro-elastic instabilities in viscoelastic microfluidic flows: suppression and augmentation in mixing efficiency

Both electrokinetic instability (EKI) and electro-elastic instability (EEI) induce chaotic structures that facilitate mixing but differ fundamentally in their spatial origin, flow topology, and temporal dynamics, with EEI increasing the mixing efficiency beyond a critical Weissenberg number.

Image reproduced by permission of C. Sasmal *et al.* from *Soft Matter*, 2026, **22**, 589.

As featured in:



See C. Sasmal *et al.*,  
*Soft Matter*, 2026, **22**, 589.