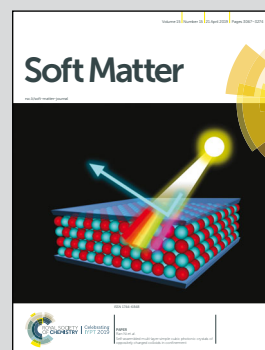


Featuring research from Guilhem P. Baeza (MATEIS), Jean-Charles Majesté (IMP), and their respective groups at the University of Lyon, Lyon and Saint-Etienne, France.

Isostructural softening of the filler network in SBR/silica nanocomposites

A new formulation of the well-used SBR/silica nanocomposite is proposed by adding short-chain polypropylene glycol (PPG) as a covering agent. While it is found to have no effect on the silica structure nor on the linear rheological properties, it dramatically softens the silica network at high deformation. Apart from its fundamental interest in the understanding of the reinforcement, this finding opens the way to a possible decorrelation between linear and non-linear properties, potentially of great interest for tire applications.

As featured in:



See Guilhem P. Baeza *et al.*,
Soft Matter, 2019, 15, 3122.