

Showcasing research from Professor Changquan Calvin Sun's laboratory, College of Pharmacy, University of Minnesota, Minneapolis, USA.

How elastically flexible can molecular crystals be? - a new record

During the gradient-cooling melt crystallization process, we obtained single crystals of CEL form I, which exhibited a record-high elastic flexibility of up to 8.7% when bent along the (001) crystal face, attributed to the surface tension of the melt. This exceptional flexibility is driven by the presence of multiple long-range dispersive interactions between (001) slip planes, as well as the rough topology of these planes, which hinders the onset of plastic slip during bending.

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