

Effect of dehydration on the mechanical properties of sodium saccharin dihydrate probed with nanoindentation

M. S. R. N. Kiran,¹ Sunil Varughese,² U. Ramamurty^{*1} and Gautam R. Desiraju^{*2}

¹Department of Materials Engineering, Indian Institute of Science, Bangalore 560 012, India,

²Solid State and Structural Chemistry Unit, Indian Institute of Science, Bangalore 560 012,
India.

Supplementary Information

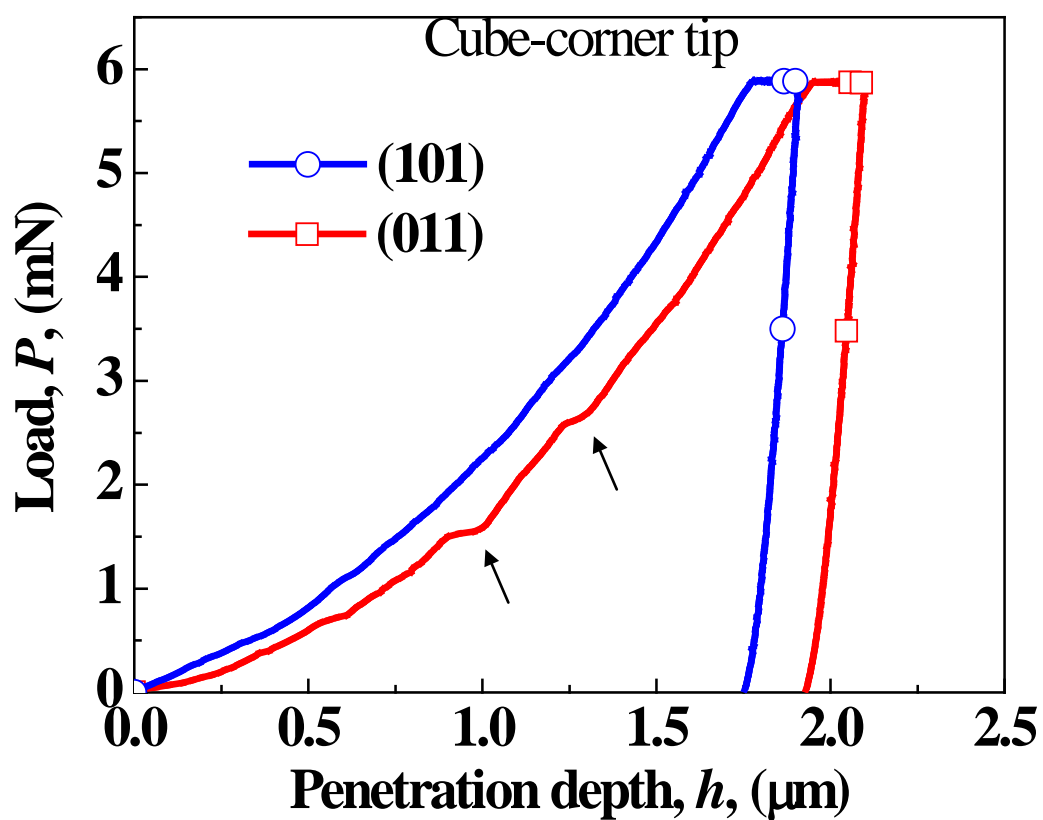


Figure S1: Representative P - h curves of sodium saccharin crystals obtained with indentation normal to (011) and (101) planes with Cube-corner diamond indenter (tip radius 75 nm). Arrows indicate discrete displacement bursts or pop-ins.

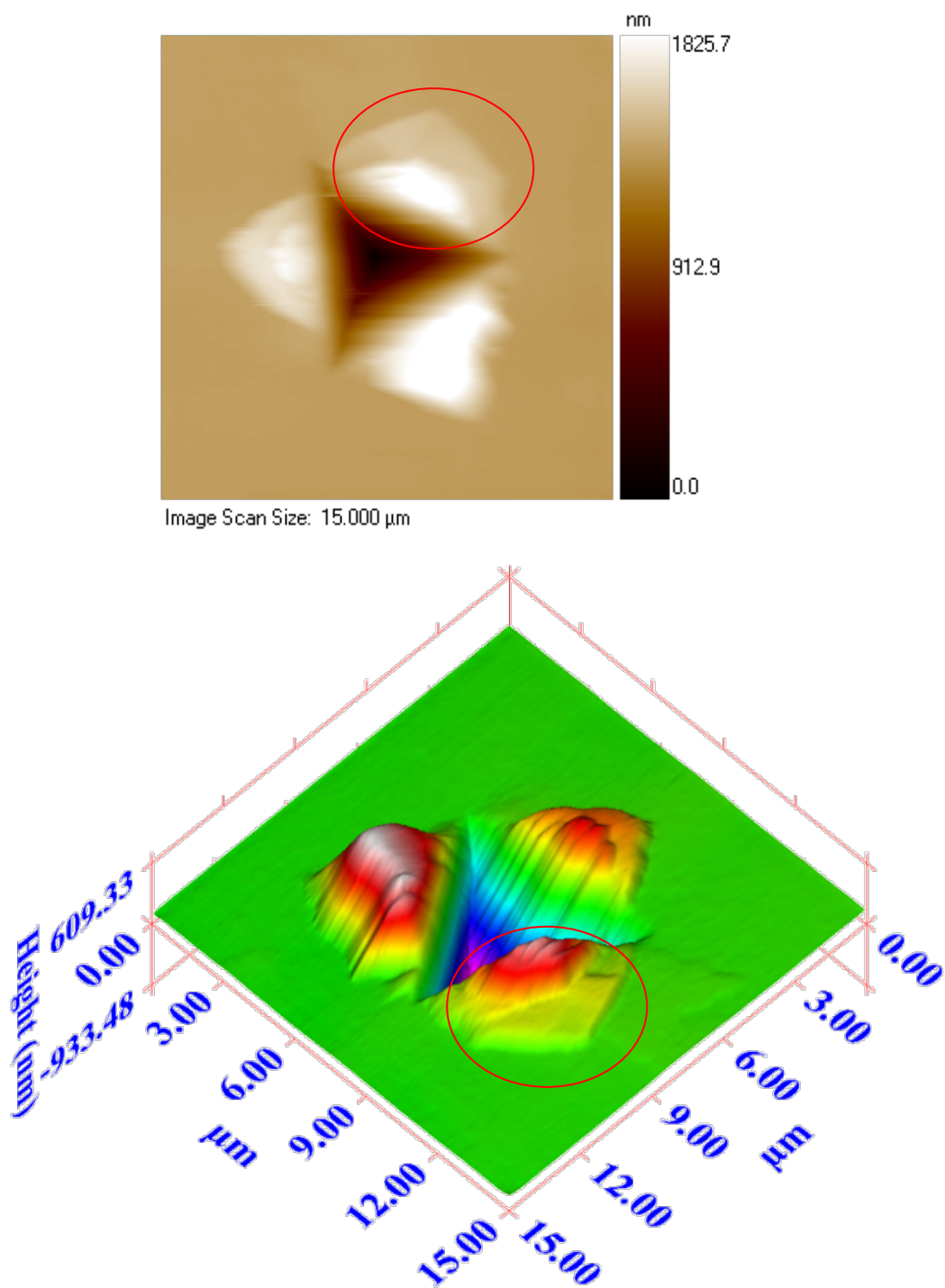


Figure S2: The atomic force microscope images of the residual indent impressions on (011) of sodium saccharinate crystal using a cube-corner tip. Red circle shows clear variation in the height and some kind of viscous flow can be easily identified.

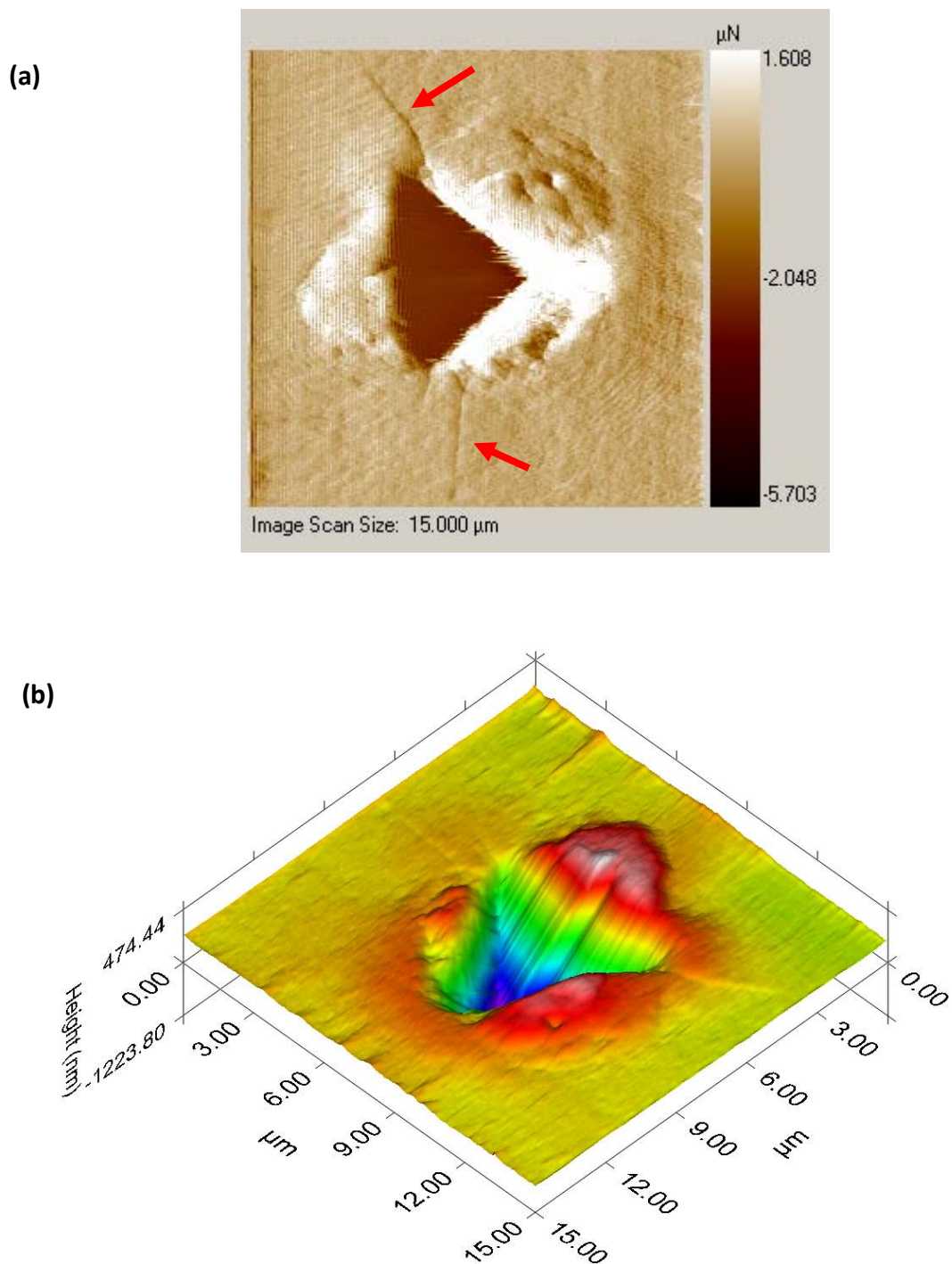


Figure S3: The atomic force microscope images of the residual indent impressions on (101) of sodium saccharinate crystal using a cube-corner tip. The AFM image is shown in the main manuscript. The phase image (a) and (b) 3D images shows clear crack along the corners of the indenter. Red arrows represent cracks.