Under the microscope #4 - Liquid crystals

January 31 2012

Dr Tim Wilkinson is combining liquid crystals with nanotechnology to try and create 3D displays which would look like real life.

Under the Microscope is a collection of videos that show glimpses of the natural and man-made world in stunning close-up. They will be released every Monday and Thursday for the next couple of months and you can see them here: bit.ly/A6bwCE

"Liquid crystal displays are now a commonplace technology from mobile phone displays to wide screen televisions. They are, however, still limited by the shape, size and speed of their pixels when they are used to display video images. This video shows microscope sequences of a new nanotechnology based liquid crystal pixel structure that will allow much higher resolution displays and even true 3D holographic displays to be fabricated in the future," Dr. Tim Wilkinson said.

The videos are all in real time. The scale varies from video to video, but the little dots which form a grid in most of them are all 10 μm apart (10th of diameter of a hair).

More information: www-g.eng.cam.ac.uk/CMMPE/displays2d.html www-g.eng.cam.ac.uk/CMMPE/research.html

Provided by University of Cambridge