

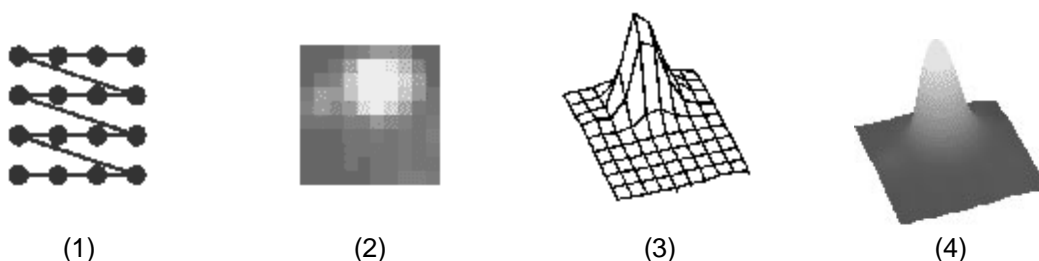
Nanochemistry

Did you know?

How STM pictures are made

The computer connected to the STM makes a grid of the surface of the substance. The tip of the STM scans the surface at points on the grid. The tip records a tiny electrical current, called the 'tunnelling current', at each point. The current changes as the tip moves up and down depending on the atoms present on the surface. A system inside the STM adjusts the tip movement, keeping it at a constant height. The adjustments are recorded and processed by the computer into an image, showing the changes in the surface of the substance.

The pictures show the process: (1) scanning; (2) the original image showing light areas as small adjustments; (3) the processed image changing light areas into heights; (4) the processed image coloured in shades of grey.



Producing an STM picture
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Then the image is coloured to show different features of the atoms.

