

Video: Cobalt oxide superlattice

June 23 2014

These individual particles of cobalt oxide have been engineered to form a superlattice or 3D mesh structure to improve their chemical activity, explains Giorgio Divitini.

"We are designing [cobalt oxide](#) assemblies at the [nanoscale](#) to improve their properties as a catalyst - a material that speeds up a reaction. We're using the material to produce hydrogen and oxygen from water, contributing to the development of new sources of fuel and energy.

Being able to make tailored structures at the nanoscale is very important for catalysis and has important applications in everyday life, from [electricity generation](#) to sensors and manufacturing processes.

In my research I study what such structures look like, using state-of-the-art electron microscopes that can push the limits of science, allowing individual atoms to be imaged and identified."

Provided by University of Cambridge

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