‘Blackest black’ ever made

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Scientists made the material while searching for ways to grow carbon nanotubes on electrically conducting materials. One material they tested was aluminium, although they first had to remove the insulating oxide layer on the surface of the metal.

The resulting surface was then used to grow carbon nanotubes. This created a material with excellent electrical and thermal properties. The scientists also noticed how black the material was. They found that their material absorbed 99.995% of light at any angle, making it the new ‘blackest black’ by a large margin.

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1. Explain why an oxide layer forms on the surface of aluminium.
2. Name two other forms of carbon with giant structures.
3. Explain how carbon nanotubes conduct electricity.