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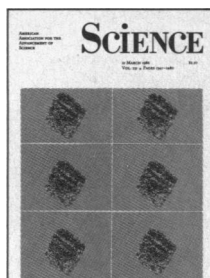
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COVER Tomographic reconstruction of a planar section (0.5 millimeter) of a sample of Illinois no. 6 coal imaged on a grid of 512 by 512 pixels at a scale of 2.8 micrometers per pixel with synchrotron x-rays at 6.8 kiloelectron volts. False color highlights density fluctuations caused by features such as microscopic bedding planes and regions of enhanced iron (red) and sulfur (yellow). The image was obtained with a newly developed three-dimensional x-ray microtomography system that creates noninvasive images of the internal structure of small samples with resolution approaching 1 micrometer. See page 1439. [Corporate Research, Exxon Research and Engineering Company, Annandale, NJ 08801]

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