Substrate Size-Selective Catalysis with Zeolite-Encapsulated Gold Nanoparticles

The Dark Crystal: A hybrid material is reported that is comprised of 1-2 nm sized gold nanoparticles, accessible only through zeolite micropores in a silicalite-1 crystal, as shown by three-dimensional TEM tomography (see picture). Calcination experiments indicate that the embedded nanoparticles are highly stable towards sintering.

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