

Photographs of two identical films on a sapphire substrate: 200 nm of Mg_2Ni capped by 5 nm of Pd. On the left the view is through the substrate; on the right we see the Pd layer. Initially, both sides are reflective (a). Upon exposure to hydrogen, the Mg_2Ni film forms a black absorbing state [(b), left side]. This switching is reversible and has possible applications to, e.g., smart coatings in solar collectors. See article 197404.

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