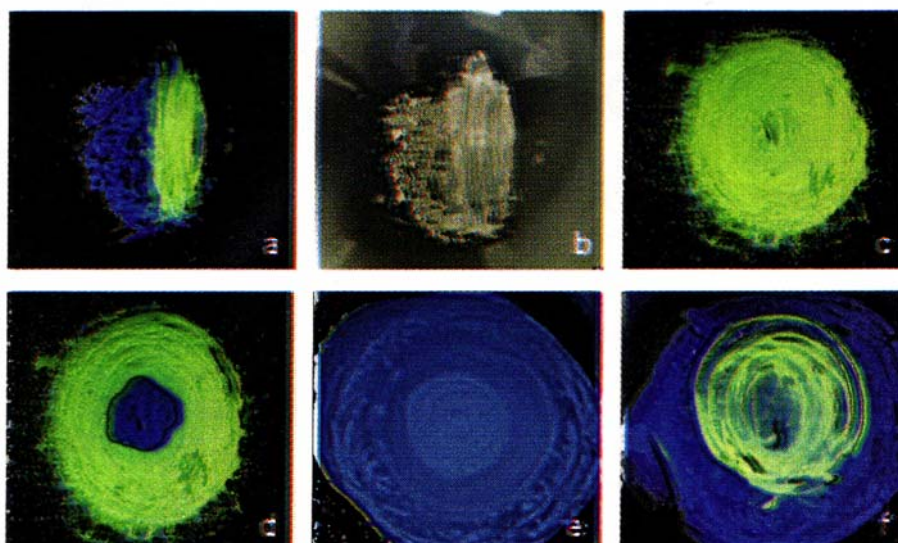


# GOLD COMPLEX CHANGES COLOR REVERSIBLY

Gentle grinding of a new Au(I) complex in solid form changes its luminescence behavior, Japanese researchers report. UV light reveals the induced change in the compound as it goes from blue to yellow (a). The color change, which isn't apparent in visible light (b), can be reversed by exposing the fully ground powder (c) to drops of dichloromethane or other solvents (d). Powder

turned completely blue by solvent (e) reverts to yellow after the solvent evaporates and the solid is again ground with a pestle (f). Chemists Hajime Ito, Masaya Sawamura, and colleagues at



Hokkaido University, in Sapporo, detected no degradation in luminescence even after 20 cycles of blue-to-yellow conversion of the  $[(C_6F_5Au)_2(\mu-1,4\text{-diisocyanobenzene})]$  complex (*J. Am. Chem. Soc.*, DOI: 10.1021/ja8019356). X-ray and IR studies suggest that grinding transforms the more stable crystalline blue phase into an amorphous yellow phase and alters the coordination of the isocyanide ligands to the gold atoms. Such compounds could be used in recording and sensing devices, the authors propose.