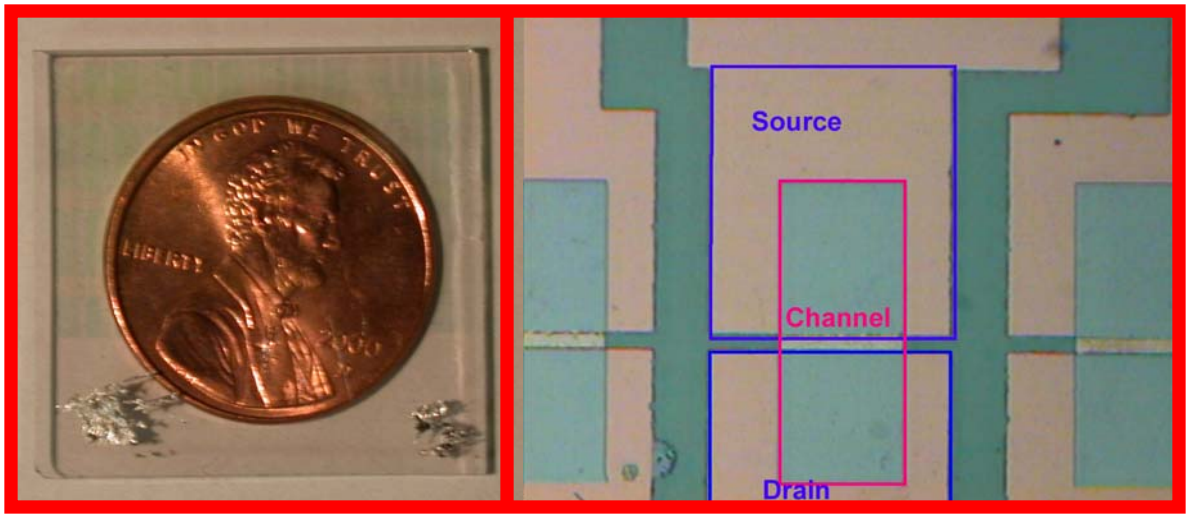
Transparent p-type conductors

Janet Tate, Douglas A. Keszler, Arthur W. Sleight, John F.Wager,
Oregon State University, DMR 0071727

Transparent Thin-Film Transistors (TTFTs)



Patterned ZnO TTFTs sitting on a penny and an enhanced-contrast, magnified image.

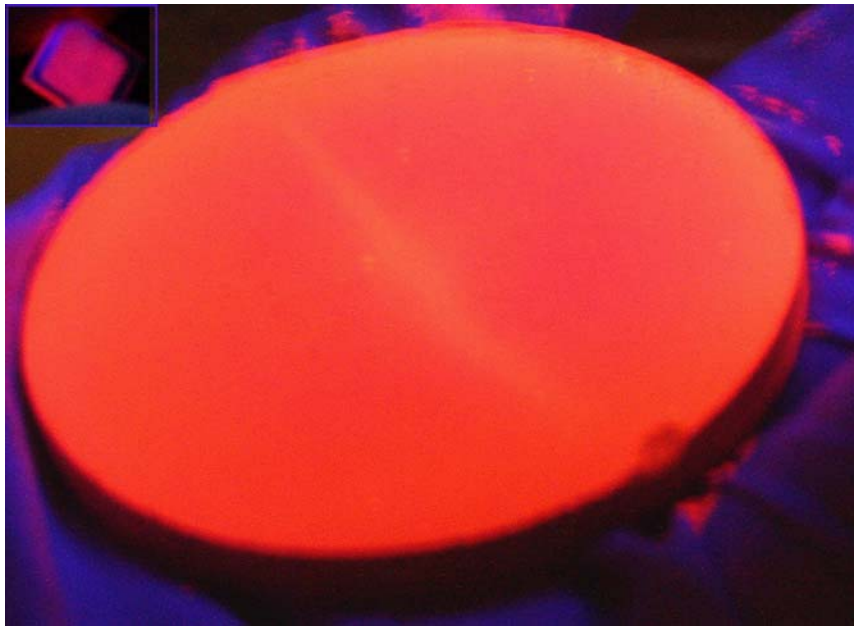
56 patterned TTFTs and 24 contact resistance structures are present in the red box. The ZnO transparent semiconductor is prepared by low-cost, spin-coating synthesis.

Transparent p-type conductors

Janet Tate, Douglas A. Keszler, Arthur W. Sleight, John F.Wager,
Oregon State University, DMR 0071727

BaCuSF is a transparent p-type conductor that produces red-orange luminescence under ultra-violet excitation.

Such light emission from transparent conductors should find application in novel display technology.



The photograph shows red luminescence from a 2.5-cm sputter target, while the upper left inset shows the same phenomenon in a 1.0-cm square thin film.