

### **semiconductor-metal transition**

Any transition from a semiconductor to a metallic state under the influence of a temperature or pressure change or both.

Examples:

1.  $\text{Ti}_2\text{O}_3$ : band-edge crossing in a semiconductor to semimetal transition.
2. SmS: localized level crossing a band edge. In SmS hydrostatic pressure above the critical pressure  $P_c \approx 0.65$  GPa broadens the Sm-5d band to make the band edge cross the Sm-4f<sup>6</sup> level.
3. A *localized-itinerant transition*.
4. A *switching transition*.  
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