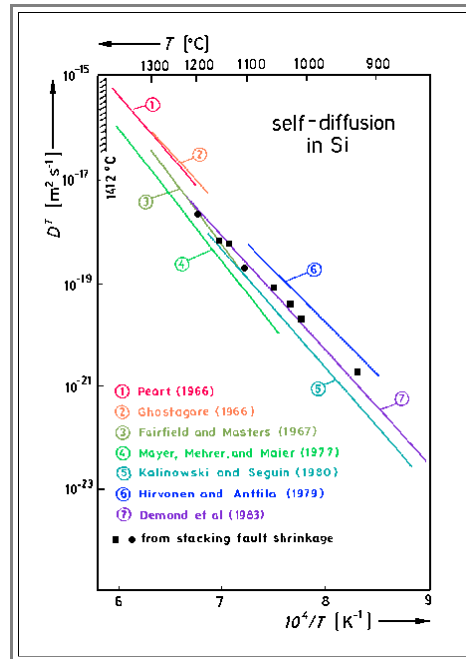


# Self-Diffusion in Si and some Metals

## Arrhenius Representation of Self-Diffusion Data in Si

Illustration

Here are some tracer self-diffusion data from various researchers (compiled by *Frank et al.*, 1984).



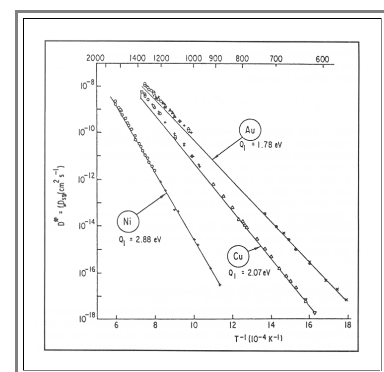
Note that extrapolations to  $D^*$  differ by almost an order of magnitude.

Be aware, that this discrepancy does not exist because some groups made "mistakes".

- Measurements are what they are: measurements. Its the data you got and, if you made a honest effort, there is nothing "wrong" about it.
- Why other groups obtain different data is an interesting question, often not easy to answer. While there must be reasons for it, its *not* because some groups are smart and others are dumb.

## Arrhenius Representation of Self-Diffusion Data in Cu, Ni, and Au

Here some data for impurity diffusion in **Si**



There is far less spread of the data compared to Si self diffusion.