Dependence of $\sigma$ on spatial arrangement

10 empty cages/unit cell $\Rightarrow$ H* may be located farther away from O*

Experiment: H-annealing at 1,300 °C and then rapid cooling to room-T
$\Rightarrow$ all H* locations are possible in freshly quenched samples

Predictions:

After heating (1$\rightarrow$2), the shortest hopping path (energetically most favorable) is realized $\Rightarrow$
con ductivity increase (2$\leftrightarrow$3)

Non-reversible behavior above 2:
- recombination $H^0 + e^- \rightarrow H^-$
- $H_2$ is released