Diffusion, or atom-movement, in solids is conventionally studied by depth-profiling the concentration of a diffusing species. Alternatively, it may be studied using a method sensitive to individual jumps of the diffusing atoms. Over close to twenty years, my group has measured jump-rates of diffusing probe atoms in a variety of different crystal structures using the method of perturbed angular correlations, a nuclear hyperfine spectroscopy that is particularly favorable for measurements at high temperature. This talk will give an overview of the measurements and of results obtained.