Charge exchange cross sections in nitrogen ions and hydrogen collisions

Nicolas Sisourat

Laboratoire de Chimie Physique – Matière et Rayonnement (LCPMR), Sorbonne Université, France

Within the Injected Impurities CRP, we aim to provide a consistent set of cross sections for the charge exchange processes between nitrogen ions and hydrogen atoms in a broad range of collision energies (from 1 eV/u to 100 keV/u). During the talk, I will present the theoretical methods that we employ. I will then report on the results we have obtained so far, especially on the collisions of $N^{4+}(2s)$ and $N^{4+}(2p)$ with hydrogen.