Radon emanation study for SuperNemo

Prof. Jose Busto (CPPM / Universitaire d'Aix-Marseille)

The background induced by radioactive noble gas appears to be one of the main constraints and restrictions for low energy experiments with low counting rate. In this context, the physisorption mechanism remains the only efficient way to catch these radioactive gases. Thus the optimization of the adsorption mechanisms for neutral gas is a major advantage to reach the required background conditions. However in our discipline, these mechanisms suffers from a poor knowledge or even are unknown. The main features concerning the radioactive noble gas capture will be reviewed, in particular we focus on the Radon case, in which we will try to understand and optimize the way to reduce these specific background.