

# $^{80}\text{Se}(n,\gamma)$ cross-section measurement at n\_TOF (CERN)

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We have measured the  $^{80}\text{Se}(n,\gamma)$  cross section with high accuracy and high resolution at CERN n\_TOF over the full energy range of astrophysical interest. These data are needed for a consistent interpretation of the temperature-sensitive s-process branching at  $^{79}\text{Se}$ . The latter represents a key branching point in the nucleosynthesis of heavy elements during core He-burning and shell C-burning in massive stars. In particular, the  $^{80}\text{Se}$  cross section affects the stellar yield of the "cold" s-only branching product in this region, namely  $^{82}\text{Kr}$ . There exists only one previous TOF measurement on  $^{80}\text{Se}$ , which however suffers of low resolution and insufficient completeness. New preliminary cross-section results will be presented together with a discussion of their possible astrophysical impact.