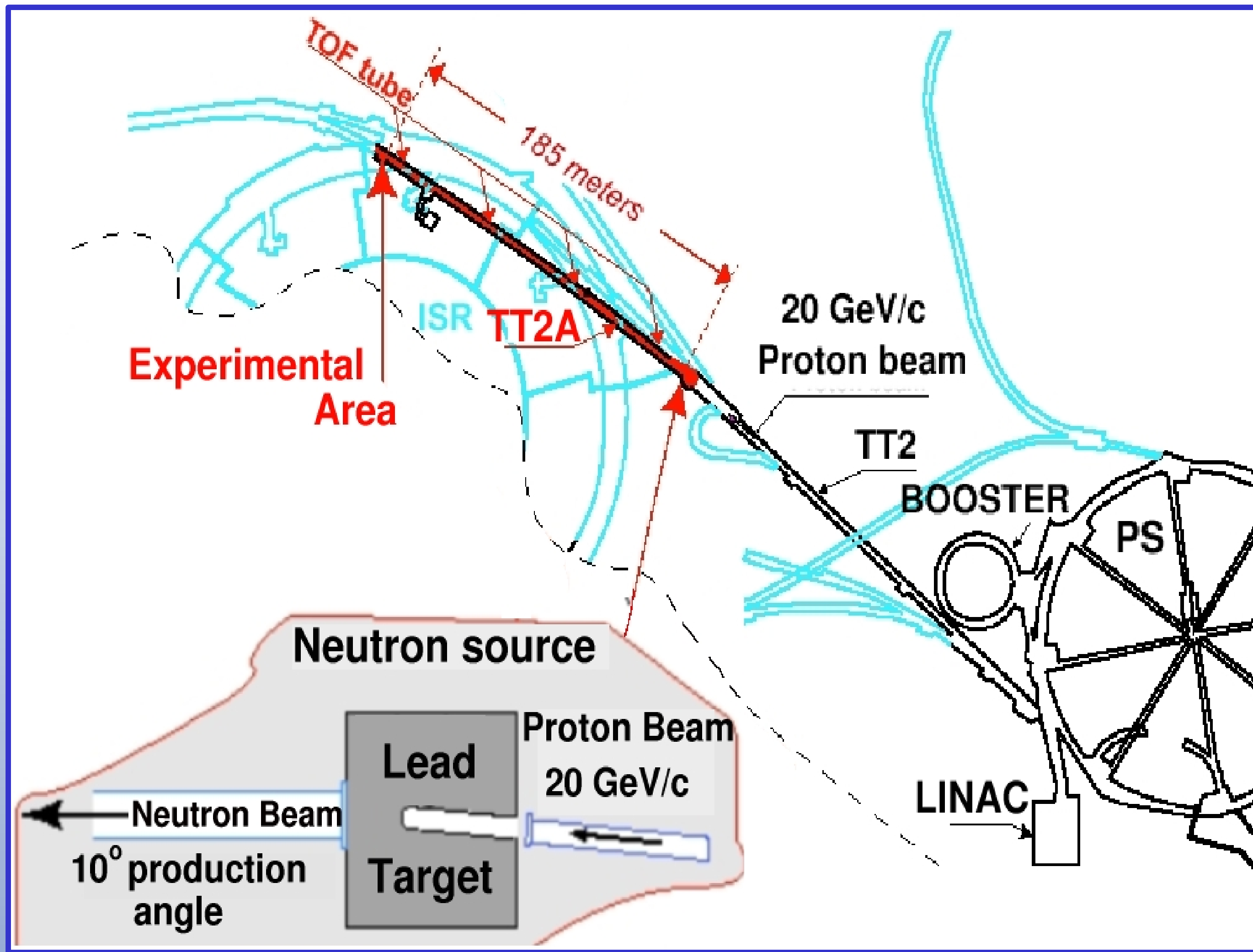


Neutron Capture on the Stable Pb Isotopes

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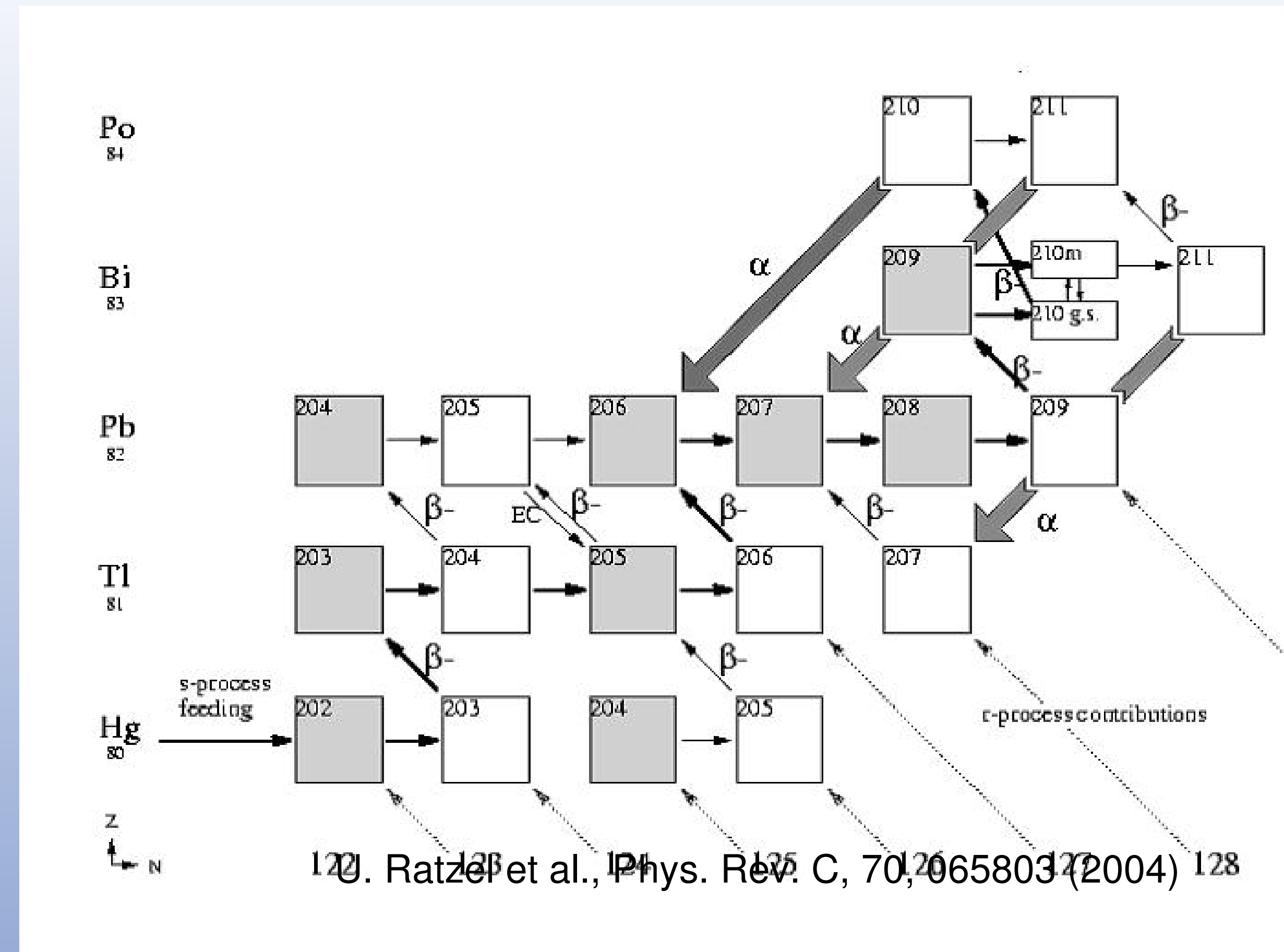
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n_TOF Beam line



The stable Pb isotopes sit at the end of the s-process synthesis chain. Studies of these unique isotopes, which are all found close to the doubly magic ²⁰⁸Pb, may give insights into the parameters of stellar burning, such as temperature and partial mixing methods, occurring during s-process nucleosynthesis. Also, accurate measurements of the s-process abundances of these isotopes will help constrain the predictions of current r-process calculations. In the hopes of gaining an understanding of the mechanisms of stellar nucleosynthesis, the n_TOF collaboration at CERN has measured the (n,γ) cross sections of the stable Pb isotopes.

A diagram of the end of the s-process path, which lies in the Pb region.



Preliminary 204(n,γ) Pb Results

