

# **Nuclear astrophysics measurements relevant to the production of $^{18}\text{F}$ and $^{26}\text{Al}$ -some recent work using stable beams and tandem facilities**

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In nuclear astrophysics research we aim to identify (through collaboration with astrophysics modellers) and then measure the key reaction rates which determine how the chemical enrichment of the galaxy has developed and how the energy is generated that powers the wide range of astrophysical phenomena we see, such as stars, novae, x-ray bursters, supernovae and gamma bursters. In many of these sites the reactions can involve short-lived nuclei, and so we require access to radioactive beams for direct measurements of the reaction rates. However there remain many situations where measurements with stable beams contribute, either for direct measurements or to provide the spectroscopic information required for the rates to be calculated theoretically. In this talk we will illustrate this with some recent results that shed light on the production of  $^{18}\text{F}$  and  $^{26}\text{Al}$ , two key cosmologically revealing radionuclei.