

## Overview of experimental conditions for (a,a'g) coincidence experiments

The Pygmy Dipole Resonance (PDR) has been investigated systematically using different experimental methods within the last years. Especially the comparison of results obtained using complementary probes revealed a deeper insight into the structure of the PDR [1,2]. Therefore, (a,a'g) experiments have been conducted at the Kernfysisch Versneller Instituut (KVI) in Groningen, The Netherlands using a primary beam energy of 136 MeV. In order to detect the scattered a particles in coincidence with the emitted gamma rays, the Big-Bite Spectrometer (BBS) and an array of High-Purity Germanium (HPGe) detectors were used [3]. The experimental setup will be discussed in detail as well as the high selectivity and the analyzing power of this method.

[1] D. Savran et al., Phys. Rev. Lett. 97 (2006) 172502

[2] J. Endres et al., Phys. Rev. Lett 105 (2010) 212503

[3] D. Savran et al., Nucl. Instr. and Meth. A 564 (2006) 267

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