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COLSPEC_MMC –a Setup of Magnetic Metallic Microcalorimeters for the CRYRING Transverse Tlectron Target

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The transverse electron target at the CRYRING has recently been commissioned successfully. It will allow investigating interactions between heavy ions and a collimated beam of monoenergetic electrons, including the emission of X-rays from radiative electron capture. For ions of low and medium nuclear charges, the X-ray transitions lie in the energy range of 1–50 keV. To determine the transition energies with high precision, a detector array of magnetic metallic microcalorimeters (MMCs), which was developed at the Rupprecht-Karls-University Heidelberg, is prepared for the application at the transverse electron target. For this purpose, an existing ^{3}He/^{4}He dilution refrigerator is prepared at the TH~University of Applied Sciences in cooperation with the Justus-Liebig-University Giessen in the framework of the APPA FSP. In addition, a special very small electron trap, a socalled MaMFIT, is set up at the TH Mittelhessen for complementary investigations which can be performed independently of the ion beams at CRYRING. The poster will present the status of the project and future perspectives.

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