Hyperfine Fields and Magnetic Moment Measurements on Radioactive Beams

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Hyperfine fields of highly-charged heavy ions carrying at least one electron are proving to be of considerable utility for magnetic-moment measurements on radioactive beams. The method has long been referred to as the recoil in vacuum (RIV) technique [1]. An overview of recent progress is given, covering some essentials of the free-ion hyperfine fields [2, 3], applications to moment measurements on radioactive beams [4–8], nuclear structure highlights, particularly in the region around doubly magic ^{132}Sn, [4–8], recent results [9] on the enigmatic case of ^{136}Te [10], and promising avenues for future work [11].

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