

Structures, shapes from gs properties

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The review will concentrate on the spin, charge radii and static moments measured by laser spectroscopic techniques and the physics question these studies can address.

In recent years most results have been obtained by high resolution laser spectroscopy using the collinear beams technique (for example by the COLLAPS collaboration at ISOLDE and a UK collaboration at the IGISOL facility, Jyvaskyla). Higher sensitivity is achieved with ion-source resonance ionization spectroscopy (RIS) but at reduced resolution.

The new ISOLDE ion cooler-buncher to be commissioned in 2006 will dramatically broaden the scope for measurements, it being able to work with considerably lower beam fluxes than has been usual at ISOLDE. It will also allow a collinear RIS technique to be used which keeps the sensitivity advantage but removes the Doppler broadening.

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