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The nuclear spin of 2.3-hr iodine-132 has been measured by means of an atomic-beam magnetic-resonance experiment and found to have the value 4. The apparatus used for this measurement has been described elsewhere.[1]

Iodine-132 is conveniently obtained by a milking process from 77-hr tellurium-132 in an iodine generator provided by the Brookhaven National Laboratory.[2] A generator initially charged with 108 millicuries of I^{132} provided a sufficient quantity of active material to observe the "flop-in" resonances of the $F = 11/2$ and $F = 9/2$ hyperfine states of the $^2P_{3/2}$ atomic ground state at magnetic field values of 1.42, 2.82, 6.92, and 13.42 gauss. The I^{132} beam was detected by collection upon silver-coated buttons which were subsequently counted in continuous-flow proportional counters. Decay half life of both the principal sample and several resonance-maxima samples were used to reaffirm identification of the isotope.

The observed value of 4 for the nuclear spin of I^{132} is consistent

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*Work done under the auspices of the U. S. Atomic Energy Commission.

[1] Garvin, Green, and Lipworth, Phys. Rev. 111, 534 (1958).

[2] Stang, Tucker, Banks, Doering, and Mills, Nucleonics 12, No. 8, 22-24 (1954).

with the single-particle shell model of the nucleus.[3] In this case the last odd proton and neutron can be reasonably assigned to the $(5g_{7/2})$ and $(4d_{3/2})$ levels respectively.

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[3] M. G. Mayer and J. H. D. Jensen, Elementary Theory of Nuclear Shell Structure (John Wiley and Sons, New York, 1955) pp 194-196.