IV. NUCLEAR MAGNETIC RESONANCE AND HYPERFINE STRUCTURE

A. HIGH-RESOLUTION MONOCHROMATOR

A new high-resolution mirror monochromator that has a focal length of 36 ft has been designed, constructed, and mounted. It uses, near autocollimation, one of the large (approximately 10 inches wide) plane, blazed diffraction gratings ruled in the Spectroscopy Laboratory, M.I.T. The spectrum is recorded photographically, at the present time, but the instrument can be adapted readily for photoelectric detection. An auxiliary mirror, which can be focused conveniently, has also been constructed to allow the use of the instrument as a multiple wavelength monochromator (1).

K. K. Y. Li, H. H. Stroke

[Mr. Li is now with the Laboratory for Nuclear Science.]

References

1. H. H. Stroke and K. K. Y. Li, High-resolution grating monochromator for simultaneous observations of more than one wavelength, J. Opt. Soc. Am. (to be published).

B. ZEEMAN EFFECT OF THE HYPERFINE STRUCTURE IN AN sp CONFIGURATION

The following corrections should be made in the report of this title that appeared in Quarterly Progress Report No. 58, July 15, 1960, pages 109-114.

1. page 110, line 10: $I + J + F'$ should read $I + J' + F$
2. page 111, line 4: $-[\ ]^{1/2}$ should read $+[\ ]^{1/2}$
3. page 111, line 12: $+ c_1 c_2 \sqrt{2}\eta$ should read $- c_1 c_2 \sqrt{2}\eta$
4. page 111, line 14: $-\frac{1}{16I}$ should read $+\frac{1}{16I}$
5. page 111, line 14: $(F+2-F)$ should read $(I+2-F)$
6. page 111, line 16: $^3P_2$ should read $^3P_1$
7. page 111, line 16: $-\frac{\left(c_1^2 - c_2^2\right)}{2}$ should read $+\frac{\left(c_1^2 - c_2^2\right)}{2}$

Corrections 2, 3, 4, and 7 arise from an error of sign that occurred in the calculation of the off-diagonal reduced matrix elements.

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