Comparison of X-Ray Diffraction in H2O and H2/2O

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phenomenon has already been observed by Herkert K. Ward with
cyclohexane in benzene. Just to what extent these phenomena may
be said to be representative is not known.

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COMPARISON OF X-RAY DIFFRACTION IN
H₂O AND H₂O

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It is to be assumed that the forces in a molecule are approxi-
mately invariant for an isotopic change in mass. Consequently
the x-ray diffraction curves for H₂O and H₂O, determined by the
structure of the corresponding liquid, may be expected to be
nearly alike. Experiment by x-ray diffractions shows this to be
the case, for the differences are well within experimental error
and are not as much as 1% over the greater part of the diffrac-
tion-intensity-angle curves.

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HYPERFINE STRUCTURE AND THE DEPOLARIZA-
TION OF RESONANCE RADIATION BY A
MAGNETIC FIELD

A. Ellett

The depolarization of Sodium D line resonance radiation result-
ing from the Larmor precession of the excited atoms has been
carefully determined by a photographic method. Results are com-
pared with a former visual determination (Jour. Opt. Soc. 10,
427, 1925). The effect of hyperfine structure and especially of the
degeneracy due to the finite breadth of adjacent hyperfine levels is
discussed following Breit, Rev. Mod. Phys. 5:91, 1933, espe-
cially Section 4, p. 117 ff.

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