Special attention was given to the possible occurence of a fifth phase in NH₄Br as reported by Garland and Young³⁾ and more recently by Ebisuzaki⁴⁾ and by Wang and Wright⁵⁾. We calculated the Raman spectra of phase IV and of the two suggested structures of phase V³⁾ using a method published recently⁶⁾. Comparison of the calculated spectra with our measurements and with those published previously⁴⁾⁵⁾ shows that in the P,T-range where phase V was expected, actually only phase IV was observed.

The Raman scattering experiment was performed in a high pressure He-cell kept in a temperature regulated cryostat. Near the triple point in NH_4I a hysteresis between 3° - 4° K and 100 - 200 bar was found.

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