

(Reprinted from *NATURE*, June 14, 1930.)

THE CRYSTAL STRUCTURE OF KRYPTON

IN a previous letter to *NATURE* upon the crystal structure of xenon, we announced that we would next examine krypton. We have modified the camera used for the previous experiments by reducing to a great extent its internal volume and making it perfectly gas-tight, so as to be able to work in a krypton atmosphere, thus overcoming the difficulties previously encountered.

The gas has been brought to the solid state upon a quartz capillary (set in the axis of the Debye camera) internally cooled by liquid nitrogen. The photograms obtained, with iron anticathode, showed 14 lines, 4 of which belong to the $K\beta$ radiation, corresponding to a face-centred cubic structure. The lattice constant of the elementary cell of krypton, containing 4 atoms, is $a = 5.78$ Å. The following data have also been calculated: volume, 193×10^{-24} c.c.; density, 2.83 gm./c.c.; atomic radius, 2.04 Å. Experimental details and a discussion upon the present data will be published elsewhere.

G. NATTA.
A. G. NASINI.

Departments of General and
Industrial Chemistry,
Royal Polytechnic, Milan,
May 31.