Copy of a printed graph referenced as "Variation of H-bond length with donor and acceptor groups"

wellcome collection

Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

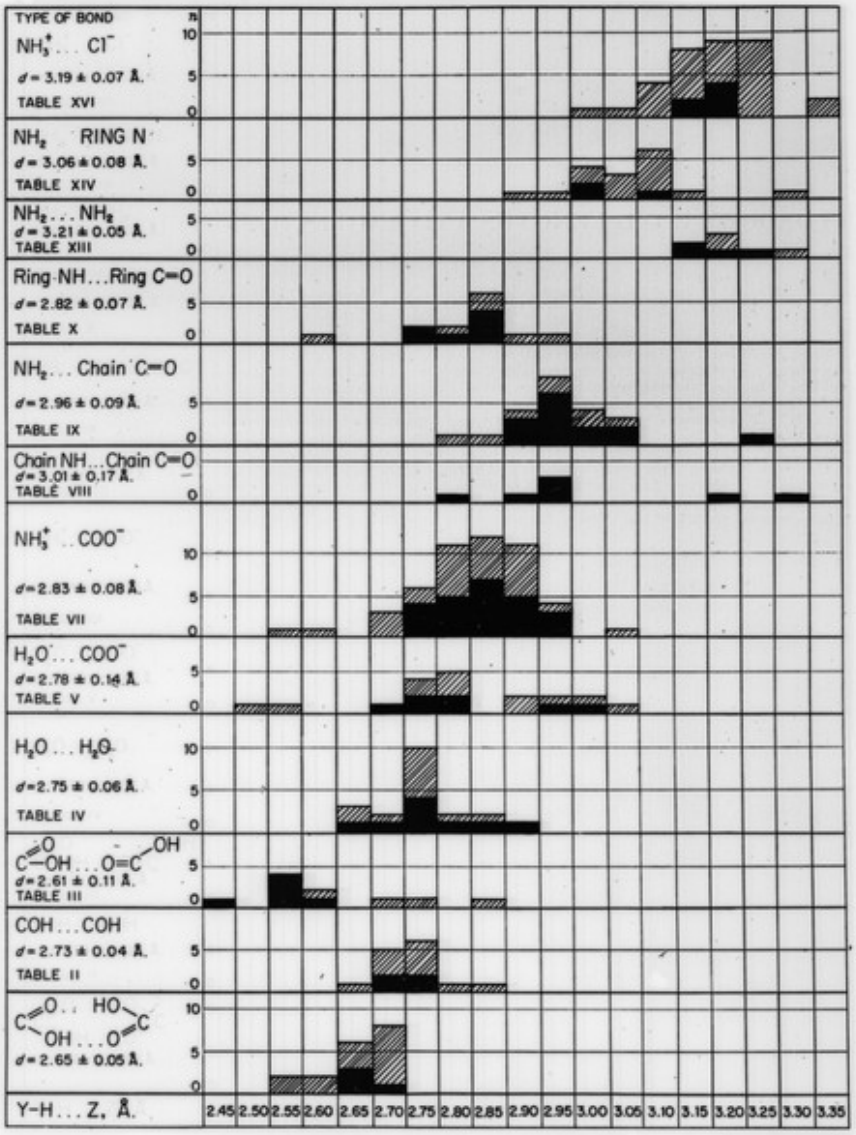

Table I

Å. in length are represented by black rectangles. The mean value of bond length in each histogram, d, is given with its standard deviation.

formation the angle at the hydrogen donor atom between the hydrogen bond direction and the expected direction of the bond from the donor to the hydrogen atom should be less than about 25°. The hydrogen bond direction is defined by <X–Y...Z where Y is the donor atom, Z the acceptor atom and X an atom covalently bonded to Y. If there are no atoms other than hydrogen covalently bonded to Y (as in water) it is convenient to let X denote another atom hydrogen bonded to Y. <X...Y...Z is then the angle between the two hydrogen bonds. For the three most common hydrogen donor groups, *i.e.*, $-NH_3^+$, the water oxygen and $-NH_2$ (for this group only those ex-