Table and text relating to A-type DNA referenced as "A Residuals"

Contributors

Fuller, Watson, 1935-

Publication/Creation

October 1963

Persistent URL

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Values of the residuals R_1 and R_2 on various layer planes for the DNA A conformation. R_1 is defined as $\sum_{hkl} \frac{|Fo - Fc|}{|Fo|}$ and R_2 as $\sum_{hkl} \frac{|Io - Ic|}{|Io|}$, where Fo and Fc are the observed and calculated structure amplitudes for reflection with indices hkl and Io and Ic are the observed and calculated intensities.

All reflections for which $\xi \leqslant 0.34 \, \text{Å}^{-1}$ and $\xi \leqslant 0.40 \, \text{Å}^{-1}$ were included in the sums. However, in those sums indicated by * the reflections included were only those for which Ic changed by more than 2% when the molecular orientation was changed from 8.2° to

24.6°.

Residual	Layer lines included	Value of residual for Ø = 8.2°	Value of residual for Ø = 24.6°
R ₁	1 to 11 inclusive		0.39
R ₂	1 to 11 inclusive		0.60
*R2	1	0. 68	0. 72
*R2	2	0.63	0.56
*R2	3	0.82	0.68
*R2	4	0.95	0.74
*R2	5	0.91	0.76
*R2	1 to 5 inclusive	0.75	0.66