$$\begin{tikzcd}
\phi(\mathbf{r})=\sum_{h} V(\mathbf{h}) \exp\{-2\pi i\mathbf{h}\,.\,\mathbf{r}\} & V(\mathbf{h})=\frac{1}{\Omega}\sum_{p} f_p(\mathbf{h}) \exp\{2\pi i\mathbf{h}\,.\,\mathbf{r}_p\} & f_p(\mathrm{s})=\int_{-\infty}^{\infty}\int_{-\infty}^{\infty}\int_{-\infty}^{\infty}\phi_p(\mathbf{r}) \exp\{2\pi i\mathrm{s}\,.\,\mathbf{r}\}\mathrm{d}x\mathrm{d}y\mathrm{d}z \\
\text{(V)}\qquad\text{(V)} \arrow[d, shift left] \arrow[d, leftarrow, shift right] & \text{(V)}\qquad\text{(V Å}^3\text{)} & \text{(V Å}^3\text{)}\qquad\text{(V)} \arrow[d, shift left] \arrow[d, leftarrow, shift right] \\
\nabla^2\phi=-4\pi(\varrho_{\mathrm{nucl.}}-\varrho_{\mathrm{el.}}) & & f_p(\mathrm{s})=\frac{1}{\pi}\left\{\frac{\mathscr{F}\varrho_{\mathrm{nucl.}}-ef_p(\mathrm{s})}{s^2}\right\} \arrow[dd, shift left] \arrow[dd, leftarrow, shift right] \\
\text{(coulomb Å}^{-3}\text{)} \arrow[d, shift left] \arrow[d, leftarrow, shift right] & & \\
\varrho(\mathbf{r})=\frac{1}{\Omega}\sum_{h} F(\mathbf{h}) \exp\{-2\pi i\mathbf{h}\,.\,\mathbf{r}\} & F(\mathbf{h})=\sum_{p} f_p(\mathbf{h}) \exp\{2\pi i\mathbf{h}\,.\,\mathbf{r}_p\} & f_p(\mathrm{s})=\int_{-\infty}^{\infty}\int_{-\infty}^{\infty}\int_{-\infty}^{\infty}\varrho_p(\mathbf{r}) \exp\{2\pi i\mathrm{s}\,.\,\mathbf{r}\}\mathrm{d}x\mathrm{d}y\mathrm{d}z \\
\text{(electron Å}^{-3}\text{)}\quad\text{(electron)} & \text{(electron)}\quad\text{(electron)} & \text{(electron)}\qquad\text{(electron Å}^{-3}\text{)}
\end{tikzcd}$$

Fig. 1. Relationship between X-ray and electron structure amplitudes and atomic scattering factors. $\varrho_{\mathrm{el.}}$ and $\varrho_{\mathrm{nucl.}}$ are charge densities with units coulomb Å^{-3}, while ϱ_p and $\varrho(\mathbf{r})$ are electron densities with units electron Å^{-3}.

$$\sigma=\frac{\pi}{W\lambda}\cdot\frac{2}{1+\left(1-\frac{v^2}{c^2}\right)^{1/2}}\,,$$

W is the accelerating voltage, and the other symbols have their conventional meaning.) Since the dimensionless quantity $\sigma V(\mathbf{h})H$ is important in all scattering calculations, some typical values for σ are given in Table 1.

The direct relationship between the atomic scattering factors for electrons and X-rays is obtained by taking Fourier transforms of both sides of Poisson's equation and applying standard boundary conditions at infinity to give

$$\mathscr{F}\phi=f_p(\mathrm{s})=\frac{1}{\pi}\left\{\frac{\mathscr{F}\varrho_{\mathrm{nucl.}}-ef_p(\mathrm{s})}{s^2}\right\},$$

where $s=2\sin\theta/\lambda$, e is the electronic charge, and $f_p(\mathrm{s})$ the X-ray atomic scattering factor.

Reference

International Tables for X-ray Crystallography (1962). Vol. III. Birmingham: Kynoch Press.

Acta Cryst. (1973). A**29**, 298

Erratum to: *n*-Beam lattice images. I. Experimental and computed images from $W_4Nb_{26}O_{77}$.

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Corrections are given to Allpress, Hewatt, Moodie & Sanders [*Acta Cryst.* (1972). A**28**, 528–536].

The following corrections to Allpress, Hewatt, Moodie & Sanders (1972) are given.

1. Page 529, equation (2) and next line should read:

$$U_{n+1}=U_n\exp\left[+i2\pi\xi(h,k)\Delta z\right]*Q_{n+1}\qquad(2)$$

where $\zeta(h,k)=-(u^2+v^2)\lambda/2$ is the excitation error for

2. Page 530, column one, fifth line from the bottom should read:

tude of the diffraction pattern with $\exp\{-i\pi\lambda\varepsilon(u^2+v^2)\}$, (u,v) being the reciprocal lattice coordinates of the appropriate reflexions.

3. Page 531, column two, line one should read:

$C*\mathscr{S}$ and $\overline{C\varrho_p}=C\varrho_p*\mathscr{S}$, where $\mathscr{S}$ is the shape transform of

4. Page 535, column one line 13 should read:

$I_0=(\bar{C}^2+\bar{S}^2)$; *i.e.* at the Gaussian focus, the contrast

Reference

Allpress, J. G., Hewatt, E. A., Moodie, A. F. & Sanders, J. V. (1972). *Acta Cryst.* A**28**, 528–536.

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