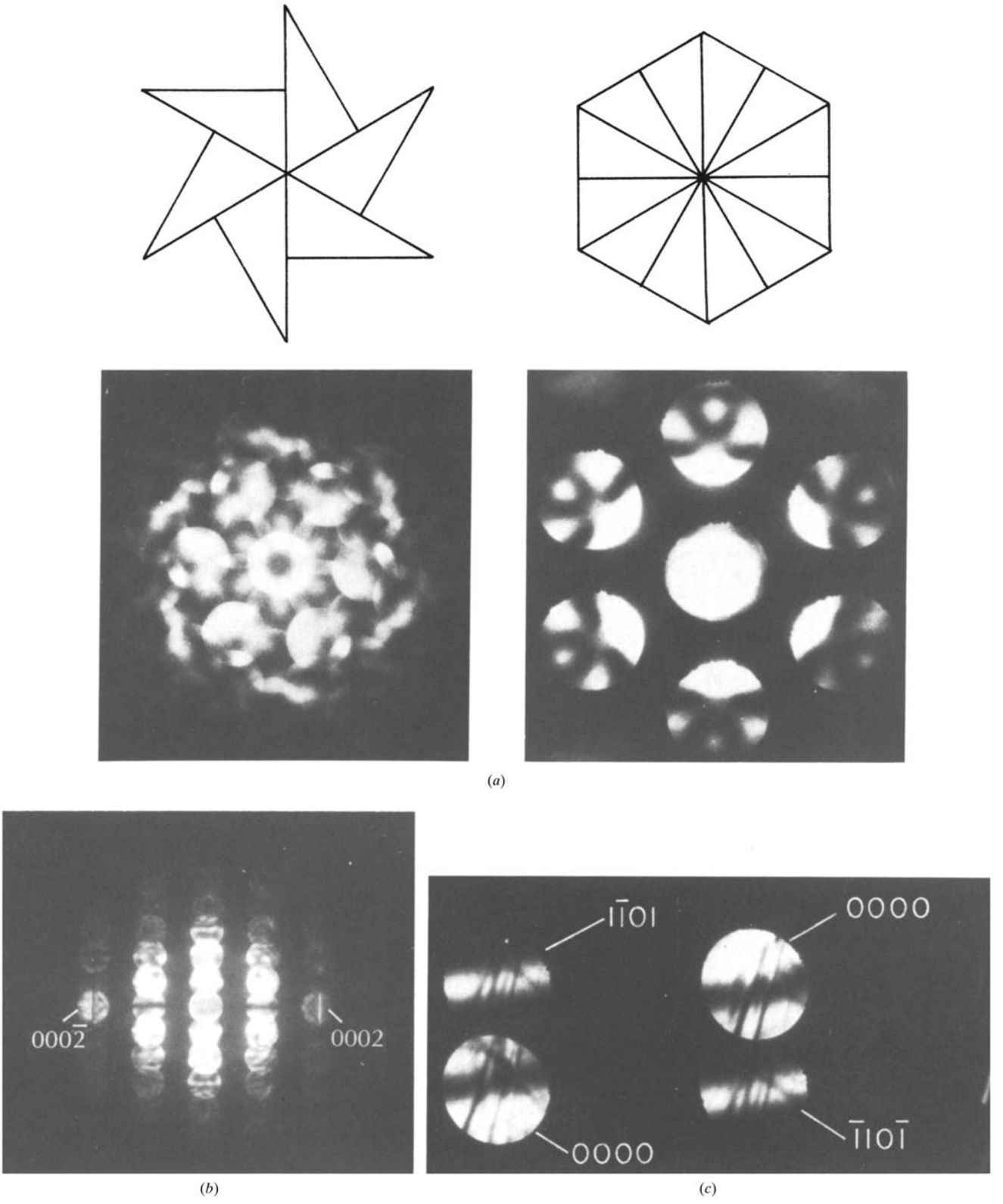


Fig. 2.5.3.4. (*a*) Zone-axis patterns from hexagonal structures $\beta$-$Si_3N_4$ (left) and $\beta$-GaS (right) together with the appropriate planar figures for point symmetries 6 and 6*mm*, respectively. (*b*) $[12\bar{1}0]$ zone-axis pattern from $\beta$-$Si_3N_4$, showing Friedel's law breakdown in symmetry between 0002 and $000\bar{2}$ reflections (Bando, 1981). (*c*) Conjugate pair of $1\bar{1}01/\bar{1}101$ patterns from $\beta$-GaS, taken near the $[1102]$ zone axis, showing a translational symmetry associated with structural centrosymmetry.

of HOLZ line geometry to unit-cell parameters (Jones *et al.*, 1977). A computer program (Tanaka & Terauchi, 1985) is available for simulating relative line positions from lattice geometry, assuming kinematical scattering, which at least provides a valid starting point since these spacings are mainly determined from geometric considerations. Fraser *et al.* (1985), for example, obtained a sensitivity of 0.03% in measurements of cubic-to-tetragonal distortions in this way, although the absolute accuracy was not established.





references