Status of Volume B: Reciprocal Space – planned 3rd Edition

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The second edition of Volume B was published in 2001 and its third edition is being planned. The subdivision of the volume in five parts remains unchanged but several changes are envisaged within most parts. Among the major revisions and additions are the following:

(i) Discussions of applications of direct methods to macromolecular crystallography will be greatly expanded; (ii) Patterson and molecular-replacement techniques will be revised, also in view of their appearance in Volume F; (iii) several major changes are expected to occur in the chapter on electron diffraction and microscopy in structure determination: a new Foreword, a thorough revision of the sections on convergent-beam electron diffraction and three-dimensional reconstruction and a new section on single-particle reconstruction; (iv) the chapter on molecular modeling and computer graphics will be enriched by a section on modern graphics software for structures consisting of small and medium-sized molecules; (v) a new chapter is being written on modern extensions of the Ewald method: (a) use of FFT in efficient computation of lattice sums, and (b) departures from the usual point-charge model; (vi) a significant revision is planned of the chapter on disorder diffuse scattering of X-rays and neutrons, and (vii) the chapter on reciprocal-space images of aperiodic crystals will be revised in view of recent developments.

Details on the second edition and the above plans can be found at:
http://www.iucr.org/iucr-top/it/itb/itb.html - IUCr office
http://crystal.tau.ac.il/xtal/comit/index.html - author's office

Keywords: International Tables, reciprocal space, methodology