The tables will combine two different efforts of C. Hermann: the list of lattice complexes for each space group, contained in "Interna-
tionale Tabellen zur Bestimmung von Kristall-
strukturen" (1935), and the detailed description of frameworks of structure types in "Strukturberichte", vols. 1 and 2. The base for the symbolism used for the description of frameworks and occupied voids are Hermann's symbols for lattice complexes (Z. Krist. 1960: 113, 142) which are expanded in "Space groups and lattice complexes" (NBS Monograph 194, 1973), and the symbols for coordination polyhedra (Donnay et al., Z. Krist. 1964: 129, 364). There is one table for each space group. The head line contains a lattice-com-
plex description of point positions and shows some homogeneous sphere packings, which occur in that space group (W. Fischer, Z. Krist. 1963: 138, 129, 1974: 140, 50). The tables will contain a detailed description of all known structure types until 1980. The cubic ones are tabulated in part IA. Part IB gives the corresponding list of all cubic homoge-
neous and heterogeneous frameworks, their properties (illustrated by drawings), and their grouping in main- and subclasses. Part IC (in preparation) will list all deformed cubic structure types and those which may be derived from cubic ones by changing the stacking sequence.

Wollastonite
Pectolite
Santacruzite
Bustamite

(A) Z[Si3O6(OH)]

(B) Y3[Si10O26(OH)2]

(C) XY3[Si4O10(OH)2]

(D) Y3[Si12O26(OH)2]H2O

(E) [Y2Si2O7(OH)]2+X2+Y2+1

(F) [Y3Si4O10(OH)2]

(*) not new (same as pectolite)

Recently (A) has been found as the mineral bastnaxite, CaScSi5O20(OH), (Melrino, priv. comm.). Expected powder patterns can be calculated for the hypothetical structures obtained from a distance least-squares method. This approach is useful not only to identify new species but also to provide systematic structural basis for Ca-Si-O-H minerals which are often too fine-grained for a single-crystal study.

Recently (A) has been found as the mineral cascatite, CaScSi5O20(OH), (Melrino, priv. comm.). Expected powder patterns can be calculated for the hypothetical structures obtained from a distance least-squares method. This approach is useful not only to identify new species but also to provide systematic structural basis for Ca-Si-O-H minerals which are often too fine-grained for a single-crystal study.

A comparison is presented between the framework (Bauverband) description of crystal structure types, making use of lattice-
complex symbols and coordination polyhedra, and the layer description, based on the characteri-
alization of layer patterns and stacking modes, and of coordination of the interstitial atoms. Illustrative examples are selected to show the capability of each symbolism to disclose inter­esting geometrical relationships, like poly-
typism, insertion, substitution, vacancy for­mation, ordering and distortion.

The need for establishing a useful compromise between the two extremes complete­but-complex and simple-but-ambiguous is stressed. The domains of convergence between both approaches are emphasized, thus making it worthwhile to undertake an agreement on a set of common symbols, as a starting point for an attempt towards a unified perspective on the systematics of inorganic crystal structures.