Book Review

STANDARD DISTRIBUTIONS IN TEXTURE ANALYSIS: MAPS FOR THE CASE OF CUBIC–ORTHOROMBIC SYMMETRY, VOLUME 2 AND VOLUME 3, by Siegfried Matthies, Galina W. Vinel and Kurt Helming. Akademie-Verlag, Berlin 1988 (Vol. 2) and 1990 (Vol. 3).

It would make no sense to review these books without referring to Vol. 1 (1987) of the same series. The review made of vol. 1 (Van Houtte, 1988) can be summarized as follows: the work contained a 139-page theoretical analysis of the problem of pole figure inversion with emphasis on the problem of the "ghost peaks" in O.D.F. analysis. It was recommended to those who want to gain a full understanding of these topics, and to those who want to perform O.D.F. analysis on non-cubic materials. It was recommended that the readers would already have experience in the field of crystallography and O.D.F. analysis.

In addition to this theoretical part, the book contained 299 pages of tables and "standard maps". These showed pole figures, inverse pole figures, complete O.D.F. (without ghost peaks) and reduced O.D.F. (with ghost peaks) of some theoretically constructed textures. These were very narrow and sharp textures around 8 ideal orientations which were typical texture components of the rolling textures and recrystallization textures of cubic metals.

Volume 2 and 3 of the work give the "standard maps" of many more crystal orientations. The three books together constitute an exhaustive collection for cubic metals with orthorombic sample symmetry (as is the case for rolling and recrystallization textures). It is obvious that these maps can be used for studies of ghost peaks: they give an answer to the question: "where are the ghost peaks generated by this or that texture component?". The maps have however another practical use as well: without any computer work, they offer the possibility to find out how a pole figure or inverse pole figure of a texture component of which the location in Euler space is known, would look like.

The books contain several appendices, with further theoretical comments and with printouts of computer codes that can be used for the generation of "standard maps".

The hardcover books are well presented, with excellent printwork and artwork.

Reference

Van Houtte (1988), Book Review, *Textures and Microstructures*, vol. **10**, pp. 97–99.