

Ted Janssen and Research of Aperiodic Structures in Japan

A.P. Tsai

*Institute of Multidisciplinary Research for Advanced Materials, Tohoku University,
980-8577 Japan
aptsai@tagen.tohoku.ac.jp*

It is well known that foundation of superspace crystallography was created by A. Janner, P.M. de Wolff together with T. Janssen. This had made possible for crystallographers to solve different kinds of aperiodic structures. Based on superspace crystallography, analysis methods were developed by Akiji Yamamoto in Japan. Yamamoto spent two months in 1983 ~ 1984 at Nijmegen working with Janssen and Janner [1] on the spacegroups of modulated structures. Yamamoto furthermore developed several software for structure analysis specialized for aperiodic structures, has been successfully utilized to solved structures of many materials such modulated and composite crystals as well as quasicrystals[2-4]. These accomplishments all originated from the concept of superspace crystallography created by Janssen et al.

Janssen visited Japan frequently. He had stayed at Sendai for three months in 2006 and one month in 2013. He has many friends in Japan including myself, and I am sure we all miss him.

1. L. Margulies, M. J. Kramer, R. W. McCallum, S. Kycia, D. R. Haeffner, J. C. Lang, A. I. Goldman, *Rev .Sci. Instrum.*, **70**, (1999), 3554.
2. P. J. Chupas, M. F. Ciruolo, J. C. Hanson, C. P. Grey, *J. Am. Chem. Soc.*, **123**, (2001), 1694.
3. H. J. Bunge, *Texture Analysis in Materials Science*. London: Butterworth. 1982.
4. D. Balzar & N. C. Popa, in *Diffraction Analysis of the Microstructure of Materials*, edited by E.J. Mittemeijer & P. Scardi (Berlin: Springer), 2004, pp. 125-145.