

## **Cocrystals and Other Complex Pharmaceutical Materials: Structure Solution from Powder Diffraction**

Jonathan Burley

School of Pharmacy, Nottingham University, NG7 2RD, UK

Powder diffraction is an increasingly powerful technique for determining unknown crystal structures in cases where suitable single crystals cannot be obtained. A brief introduction to structure solution from powder data will be given. Several recent examples will be presented - both published and unpublished - which illustrate that relatively complicated structures can now be readily solved in-house. Examples will include pharmaceuticals, polymorphs, organometallics, salts and cocrystals [1-4].

[1] A. Llinas et al (2007), *J. Appl. Cryst.*, **40**, 379-381.

[2] J.C. Burley et al (2007), *Acta Cryst. E.*, **63**, M238-M240.

[3] A. Llinas et al (2006), *Acta Cryst. E.*, **62**, O4196-O4199.

[4] T. Frisic et al (2006), *Chem. Comm.*, **48**, 5009-5011.