



Mini-symposium

Do we understand (powder) X-ray diffraction?

X-ray diffraction is an extremely successful technique for determining the atomic-scale structure of matter and has been used for more than a century. Not all appears to be well, however. Based upon the observation that surprisingly complete powder diffraction patterns can be obtained using samples with very few crystallites, Dr. Paul Fewster has challenged the conventional interpretation of X-ray diffraction and has recently published "A new theory for X-ray diffraction" (Acta Cryst. A70 (2014) 257).

The goal of this mini-symposium is to understand and discuss this new theory. Dr. Paul Fewster will explain his ideas, while several other speakers will present closely related topics. There will be ample time for discussion.

Location: Radboud University, Institute for Molecules and Materials
Huygens Building
Lecture room HG00.622
Heyendaalseweg 135
6525 AJ Nijmegen

Date: Friday, 15 April 2016

Organizers: René de Gelder, Hans te Nijenhuis and Elias Vlieg

Registration: Send an e-mail to Mrs. Elizabeth Salem (salem@science.ru.nl) with subject: 'registration 15 April XRD' and including your full name and affiliation.

Fee: € 20 (including lunch), to be paid in cash during registration at the meeting itself. NVK members pay € 10.

Sponsors: PANalytical, Institute for Molecules and Materials, NVK

PROGRAMME

10.30 *Registration, coffee/tea*

11.00 Opening

11.05 **(historical) background**

Hans te Nijenhuis (PANalytical, Almelo)

11.30 **A new theory of X-ray diffraction - should we be concerned?**

Paul Fewster (PANalytical, Brighton, UK)

12.30 *lunch*

13.30 **Do experimental tests of PXRD reveal shortcomings?**

Paul Tinnemans (Radboud University)

14.00 **Accounting for partialities in serial crystallography**

Loes Kroon-Batenburg (Utrecht University)

14.30 **X-ray diffraction from surfaces: part of the answer?**

Elias Vlieg (Radboud University)

15.00 *Closure, coffee/tea*