Poster Presentation

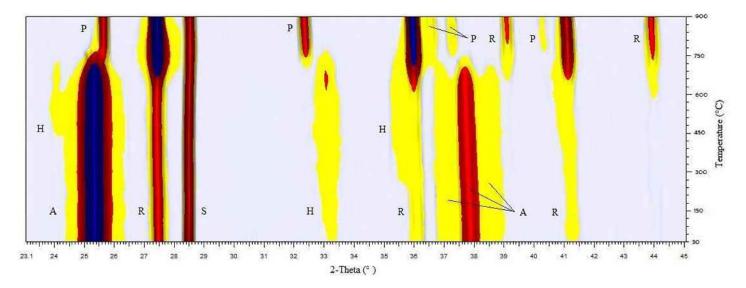
MS79.P02

In situ PXRD studies of heterogeneous catalysts and pre-catalysts

D. Billing¹

¹University of the Witwatersrand, School of Chemistry, Johannesburg, South Africa

During the course of the last couple of years, my collaborators and I have studied a number of catalytic systems using a lab based PXRD facility at our disposal. Of particular interest to us has been the supported catalysts used in Fischer Tropsch catalysis as well as those used in the synthesis of multiwalled carbon nano tubes. These studies have all proven invaluable to the understanding of the often complex phase evolution that is an intricate and inherent part of the heterogeneous processes of interest to us. Selected results will be presented to illustrate the usefulness and value of these studies. For example below is the intensity profile of the diffraction patterns collected during the heat-treatment of the pre-catalyst: A – anatase, R – rutile, S – silicon, H – hematite and P – pseudobrookite



Keywords: In situ PXRD, Heterogeneous Catalysis