

NEW FAST IN-SITU XRD SYSTEM ALLOWS GROWTH STUDIES OF THIN FILMS FOR PHOTOVOLTAICS

Alfried Haase *, Matthias Klatt, Achim Schafmeister, Rainer Stabenow,
GE Sensing & Inspection Technologies, **SEIFERT *Analytical X-ray***, Ahrensburg, GERMANY
Immo Kötschau,
Centrotherm Photovoltaics AG, Blaubeuren, GERMANY

High speed detectors play an essential role in modern XRD systems. Fast measurements leading to high sample throughput is a well-known feature. On the other hand, an ultra-high speed position sensitive detector with very short read-out time in the range of 0.03ms combined with high capture angle is a perfect tool for fast in-situ kinetic analysis. As an example, the phase transition and reaction during reactive temperature processing of a Cu(In,Ga)Se₂ thin film from photovoltaics is presented.