

Special Issue

Spectroscopic Methods in Solid State Diffusion and Reactions

Bunsen Colloquium

on the occasion of the 65th birthday of Prof. Dr. Klaus-Dieter Becker

September 24th – 25th, 2009

Leibniz University Hannover, Germany

Preface

This special issue of the Online Journal *Diffusion Fundamentals* contains contributions presented at the *Bunsen Colloquium “Spectroscopic Methods in Solid State Diffusion and Reactions”*, held at Leibniz University Hannover, Germany, September 24th – 25th, 2009. The conference was organized on the occasion of the 65th birthday of Prof. Dr. Klaus-Dieter Becker who has been very active in this field over many years.

The Bunsen Colloquium brought together researchers studying diffusion and reactions in solids with various spectroscopic methods. Focus was on the large variety of the pertaining techniques – whether microscopic or macroscopic, nuclear or non-nuclear – which included conductivity spectroscopy, quasi-elastic neutron scattering, Mößbauer spectroscopy, nuclear magnetic resonance, mass spectrometry and neutron reflectometry as well as X-ray absorption, electron spin resonance, photoelectron and optical spectroscopies.

This special issue comprises extended abstracts of thirteen invited oral contributions (p. 1 to p. 30) which highlighted possibilities of selected methods and gave examples of their modern applications, primarily to inorganic materials. Furthermore extended abstracts of posters (p. 31 to 110) with contributions to the field of solid state diffusion and reactions are included.

The Guest Editors

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