

Lectures confirmed as per 18/12-2015

Opening

Helge Aasen, CEO Elkem AS

Raw materials - Quartz

Phase transformations in quartz and its effect on furnace operation

Eli Ringdalen, NTNU, Norway

NEW: Quartz raw materials for silicon production

Kurt Aasly, NTNU – Department of Geology and Mineral Resources Engineering, Trondheim, Norway and Vishu Dosaj, Dow Corning Corporation, Midland, USA

Silicon - Production

NEW: Operational aspects of Silicon production

Birger Andresen, Fesil AS, Norway

Numerical simulation of Multi-fields in submerged arc furnace for metallurgical grade silicon production

Wenhui MA, Yanqi DONG, Kuixian WEI, Xi YANG and Xingwei YANG, Kunming University of Science and Technology, China

Silicon - Solidification

NEW: Sistruc: A microstructure model for optimization of silicon materials

S. Gouttebroze, Q. Du, M. M'Hamdi, SINTEF Materials and Chemistry, Oslo, Norway

Silicon - Casting

Growth of intermetallic phases below the melting point of silicon and consequences on FBR efficiency

Andrea Broggi, NTNU, Norway

Removal iron from metallurgical grade silicon melt with plasma assisted solidification

Kuixian WEI, Longzhong GAO, Wenhui MA, Damin Zheng and Yongnian Dai, Kunming University of Science and Technology, China

Silicon - Analytical

A new and fast method for determination of boron, phosphorous and other trace elements in metallurgical grade silicon

Anja Rietig and Jörg Acker, Brandenburgische Technische Universität Cottbus-Senftenberg, Germany

Silicon – Environmental

Exergy analyses in Si production

Marit Takla, NTNU, Norway

An overview of recent EU regulatory developments in industrial emissions having a direct impact on silicon production in Europe

Nadia Vinck, Euroalliage

Silicon – New development

New environmental friendly method for production of silicon

Alf Tore Haug, Elkem AS, Norway

MCS –Production

Transport of copper in the MCS reactor

Cecile Rosier+B2:B20, Bluestar Silicone France, France

Aluminum Species in Methylchlorosilanes Production: From Identification to Sequestering or Removal,

J. Mohsseni, A. Bockholt, Wacker Chemie AG, Germany

NEW: Mechanistic Aspects of the Rochow Direct Process

Genqiang Xue, Unni Pillai, Dow Corning Corporation, Carrollton, Kentucky, USA

Advanced Modelling of Müller-Rochow-Synthesis

Michael Müller, Wacker Chemie AG, Stefan Heinrich, Institute of Solids Process Engineering and Particle Technology, Hamburg University of Technology, Denickestr. 15, 21071 Hamburg, Germany

DC –Safety

NEW: Identification and root cause analysis of micro-cracks in a trichlorosilane reactor

Sean Gaal, Bill Larson, John Herman and Eric Davis, Dow Corning Corporation, Midland, USA

Explosion and Fire at Yokkaichi Plant - Explanation, consequences and action items from the Yokkaichi plant incident that had 5 fatalities

Matt Wilson, Mitsubishi Polycrystalline Silicon America Corporation, USA

Quantum chemical approach toward the identification of hydrolyzed chlorosilane oligomer - Investigations into polymers generated in polysilicon process

Norikazu Komada, Yasuhiro Hanaue and Takako Kudo, Mitsubishi Materials Corporation and Gumma University, Japan

Application – By-products

Fumed Silica – A High-Tech Material from Products of Silicon Processing

T. Gottschalk-Gaudig and E.-P. Mayer, Wacker Chemie AG, Germany

Application – Environmental

Silicon to Silicone – We help make things work better

Dr. Pierre Germain, CES Secretary General, CEFIC, Ralf Maecker, Director Government & Industry Relations, Momentive Performance Materials, Germany

Silicon - Market

How are supply-side changes affecting the silicon market?

Jørn de Linde, CRU International Inc, USA

DC/MCS/HC - Equipment

NEW: Evaluation of the influence of Vortex Stabilizer on Cyclone Performance by Computational Fluid Dynamics (CFD)

Jing Huang, Dow Corning Corporation, Midland, USA

DC/HC – Distillation

Optimize Your Chlorosilane Distillation Columns

Larry Coleman, Consultants on demand, USA

Silane - Production

New Monosilane Decomposition Technology

Mark W. Dassel, Centrotherm photovoltaics USA

DC/HC – CVD

New Method to Improve Siemens CVD Operations

Larry Coleman, Consultants on demand, USA

Application - Solar

***NEW:** Property control of B and P containing mc-Si by co-doping Al*

Yuliu YOU and Kazuki MORITA, Department of Materials Engineering, The University of Tokyo, Japan