



Silicon for Chemical and Solar industry XIV

Svolvær, Norway 11-14 June, 2018

Preliminary content of the conference

Application of metallurgical grade silicon in chemical industry

The impact of lattice strain on the reactivity of silicon

(Jürg Acker, Brandenburgische Technische Universität Cottbus-Senftenberg)

Exploring thermal pyrolysis of monosilane through gas chromatography-mass spectrometry measurements of higher order silanes

(Guro Marie Wyller, Institute for Energy Technology, Norway)

New approaches to the investigation of carbon formation in the Direct Synthesis of Methylchlorosilanes

(Amalie Tysseland, Estelle HH Vanhaecke, Isaac Yeboah, Edd Blekkan, Hilde Venvik, Norwegian University of Science and Technology)

Recovery of value from cyclone fines and the higher boiling fraction from the Rochow-Mueller direct synthesis of Methylchlorosilanes

(John Neely, Momentive)

The effect of minor elements on the production of trichlorosilane

(Sean Gaal, Ryan Schafer, Scott Stachowiak, Dow Corning)

Chinese Silicone industry meets with new opportunities

(Luo Liguang, Hoshine Silicon Industry Co. Ltd)

Influence on TCS selectivity and Downstream effect of Phosphorous

(Alan Crawford, Alan Crawford Consulting LLC)

FTIR Calibration for Detection of High Concentration Chlorosilanes in a Pilot-scale Hydrochlorination Reactor and Comparison with Modelling Results

(Bryan Nettles, Mitsubishi)

Analyses

Carbon Measurements of Silicon Samples

(Gerhard Traunspurger, Karl Rimböck, Wacker Chemie AG)

Determination of Si content in Silicon

(Torbjørn Røe, Johan Svanem, Harry Rong, Elkem)

New technologies

Industrial-scale synthesis of high performance Si-based nanopowders for energy storage applications

(Julia Lyubina, Bodo Frings, Andreas Höfler, Reiner Störger, Stefan Bade, Evonik)

Silicon as phase change material in energy storage units

(Wojciech Polkowski, Foundry Research Institute)

Porous silicon as the ideal Thermoelectric material enabling valuable thermo electric generators and coolers

(John Carberry, Silniva corporation)

Marked

Will there be another China?

(Jørn de Linde, CRU)

Health, Environment and Safety

The EHS Achilles heel of the Silicon Furnace – the potential for energy out of control!

(Halvard Tveit and Mark Breidenthal, Elkem)

Dust production during tapping and refining

(Gabriella Tranell, NTNU)

An update of the EU regulatory developments and initiatives in the field of environment and their impact on the European manufacturing of Silicon and its by-products

(Nadia Vinck, EuroAlliage)

Fume collection in FeSi/Si plants; Regulations and Technical measures

(Ragnhild Jensen, Elkem)

Metallurgical grade silicon production

Thermal strength and phase transformations in commercial quartz materials

(Karin Fjeldstad, NTNU)

Slag accumulations in industrial Si furnaces

(Michał Ksiazek, Marit Buhaug, Wacker/NTNU/SINTEF)

SiC in industrial Si-production

(Eli Ringdalen, SINTEF)

Condensation reactions in the furnace

(Andrea Broggi, NTNU)

Effect of carbonaceous reductants on the energy consumption of the silicon furnace
(Zhengjie Chen , Wenhui Ma, Jie Wang , Kuixian Wei, Jijun Wu, Kunming University)

Si formation in SiC particles
(Sethulaksmi Jayakumari, NTNU)

Electrodes

Development and application of PAH free electrode paste
(Johann-Christian Leye, RHEINFELDEN CARBON GmbH & Co. KG)

Söderberg electrode technology and the potential for higher performance metallurgical silicon for the solar and chemical industry
(Valdiney Domingos de Oliveira, Rodrigo Silva de Faria, Lou Parous, Viridis Iq)

Innovative Electrode Production For Submerged Arc Furnaces from ENERGOPROM
(Matveev Anatoly, ENERGOPROM R&D)

The replacement of coal tar pitch – opportunities and constraints
(Trygve Eidet, Elkem Carbon)

New Solar Grade silicon processes

The effect of frequency on silicon separation from Al-Si melt during its directional solidification
(Yunfei He , Wenhui Ma, Guoqiang Lv ,Yufeng Zhang, Yun Lei , Xi Yang, Kunming University)

Boron Removal from Metallurgical Grade Silicon by a technique of slag refining and acid leaching
(Zhenfei Xia, Jijun Wu, Wenhui Ma, Yun Lei, Kuixian Wei, Kunming University)

Removal of boron from ferrosilicon alloy via slag refining
(Leili Tafaghodi, Ali Hosseinpour, University of British Colombia)

Energy use and environmental impacts of various silicon refining methods
(T.J Preston, Institute for Energy Technology, Norway)

Solar silicon production through metallurgical processes and Elkem solar advancements
(Adrian Murgau, Elkem Solar, Jafar Safarian, NTNU)

Effects of forced convection in the micro- and macro-structure of metallurgical grade ingots obtained under unidirectional solidification
(Denir Paganini Nascimento, USP/IPT, Brazil)