



Lectures confirmed February 2020

Silicon production - Furnace:

Particulate matter and related airborne emissions from silicon and ferrosilicon production

Ida Kero, Svend Grådahl – **SINTEF**, Gabriella Tranell – **NTNU**

Indirect emissions from Silicon Metal Production, the development in energy related emissions

Guðrún Sævarsdóttir - **University of Reykjavik**

Sustainable production of silicon and chlorosilane in Dow.

Louise Daintith, Andy Jones, Peter Goossen, Sean Gaal - **Dow**

Detecting and resolving water leaks

Javier Bullon

Effect of melting properties of quartz on industrial Si and FeSi production

Eli Ringdalen, Halvard Tveit, Sarina Bao - **SINTEF**

Electrode wear during the Si process.

Michael Ksiazek, Eli Ringdalen, Merete Tangstad - **SINTEF**

Empirical analysis of clogging of SiC charges: effect of condensation of SiO(g) and CO(g)

Andrea Broggi - **NTNU**

Important parameters that control the crater pressure in a Silicon Furnace

Halvard Tveit, Eli Ringdalen, Hanne Edfeldt – **SINTEF**

New and improved linings with environmentally friendly materials.

Lars Lindstad - **Elkem Carbon**

Possibility of using carbon-bearing dust as a subproduct of baked anodes in silicon production

N.V. Nemchinova, A.A. Tyutrin, M.N. Rybina, - **Irkutsk National Research Technical University**

Carbon fibers – alternative to graphite core in composite technology?

Dr. Robert Becker - **RHEINFELDEN CARBON GmbH & Co. KG**

Silicon production with high energy efficiency and low CO₂ footprint

Geir Ausland – **Elkem**

Electrical resistivity of C and SiC materials and its effect on energy distribution

Hayley Hoover - **NTNU**

Silicon production - Tapping, refining casting:

Slag in tapping area in Si furnaces

Marit Buhaug Folstad - **NTNU**

New production technology Silicon:

Metallothermal production of Si

Bjørn Sandberg, Ragnar Tronstad – **Styrhuset Vekstskaping, Norway**

The SisAl process – low energy silicon production through valorization of secondary silicon- and aluminium streams without direct CO₂ emissions

Gabriella Tranell - **NTNU**

Application of silicon-Silicones:

Carbon formation in the Direct Synthesis of Methylchlorosilanes: development of and learnings from methodical sampling and characterization of contact mass

Mehdi Mahmoodinia¹⁾, Torbjørn Røe²⁾, Philip Putze^{1, 3)}, Hammad Farooq¹⁾, Estelle M. M. Vanhaecke¹⁾, Ingeborg-Helene Svenum⁴⁾, Edd A. Blekkan¹⁾, and Hilde J. Venvik¹⁾ -

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Study of the CH₃Cl cracking for the methylchlorosilanes syntheses

Eugénie Blaser, Stéphane Loridant, Christophe Geantet, Cécile Rosier - **Université de Lyon, Institut de Recherches sur la Catalyse et l'Environnement de Lyon (IRCELYON)**

Characterization of solid carbonaceous compounds formed in the methylchlorosilanes syntheses

Eugénie Blaser, Stéphane Loridant, Christophe Geantet, Cécile Rosier - **Université de Lyon, Institut de Recherches sur la Catalyse et l'Environnement de Lyon (IRCELYON)**

Lattice strain and phase transformations in silicon introduced by the precipitation of Cu_3Si

Jörg Acker - **Brandenburg University of Technology**

New Catalyst Systems for Substituent Redistribution Reactions on Silicon

Dr. A. Bockholt – **Wacker**

Application of silicon- Solar and electronics:

Effects of Shortening a Pilot-Scale Hydrochlorination Reactor and Comparison to Mathematical Model Predictions

Matthias A. Colomb, Bryan Nettles, Steven Ladner – **MPSAC**

Activation of silicon in the hydrochlorination process

Jan Otto Hoel and Harry Morten Rong - **Elkem**

Reactivity of HCl at the Si(100)-c(4x2) reconstructed surface: a DFT study.

Francesca L. Bleken, Ingeborg-Helene Svenum, Sylvain Gouttebroze - **SINTEF**

Application of silicon- Others:

Silicon and ferrosilicon phase change thermal batteries

Alejandro Datas - **University of Madrid**

Effect of operation parameters and formulation on the submicron and nano size silicon powder properties produced by mechanical grinding

B.E. Nilssen, B.R. Henriksen, R.A. Kleiv - **Elkem ASA**

Solar applications:

Research and development of metallurgical process for SoG-Si in China

Chao Chen^{1,2}, Zhilin Sheng², Jun Shi², Songsheng Zheng¹ - ¹.**College of Energy, Xianmen University, P.R. China, ² Chinese metallurgy SoG-Si innovation industry alliance**

Solar silicon production through Vacuum-Gas-directional solidification (NTNU-VGS) process

Arman Hoseinpour, Gabriella Tranell, Jafar Safarian -**NTNU**

The effect of Ti and Y addition on the microstructure and leaching purification of MG-Si alloyed by Ca

Mengyi Zhu, Jafar Safarian – **NTNU**

Towards circular economy for the PV industry

Ronny Gløckner, Tyke Naas, Johan Heide, Kenneth Friestad - **REC Solar Norway AS**

Recycling Silicon Kerf: Challenges, Solutions and Applications

Jan-Philipp Mai, Qian Yu - **JPM Silicon**

Market:

The PV market situation in China 2019 and the future

Songsheng Zheng, Jin Chen, Xiaohui Hu, Zhibin Lin, Zhaolin Wang - **College of Energy Xiamen University**

Silicon in the 2020s

Jorn de Linde - **CRU**