

## CONTENTS

B. Andresen: <b>The metallurgical silicon process revisited</b> .....	11
H. Tveit, K.H. Berget, M. Førde Møll: <b>The silicon process – the need for a major upgrade of the internal environment and fugitive emissions</b> .....	25
M. Breidenthal: <b>Changing environment, health and safety (EHS) culture in Chinese heavy industry.</b> .....	35
J. Safarian, M.Tangstad: <b>Vacuum behaviour of the dissolved elements in molten silicon</b> .....	41
H. M. T. Goto, B. S. Parreiras, A. Pujatti, M. E. Lemos, G. A. Rios, A. P. Portela, A. G. O. Silva, E. C. Fernandes, A. I Masuko: <b>Improving overall plant effectiveness through TPM methodology at Dow Corning Metais do Pará</b> .....	51
J.-P. Mai, G. Raabe, J. Koehler: <b>Production of metallurgical grade silicon by microwave heating</b> .....	65
O.V. Chemezov, O.N. Vinogradov-Jabrov, A.P. Apisarov, A.V. Isakov, S.V. Plaxin, V.B. Malkov, Yu.P. Zaikov: <b>Structure nano- and micro-crystalline silicon deposits obtained by electrolytic refining in the KCl-CsCl-KF-K<sub>2</sub>SiF<sub>6</sub> melt</b> .....	71
M. Barati, S. Sarder, M. Johnston, Y. Chaugule, A. McLean: <b>An integrated process for synthesis of high purity silicon from silica fume</b> .....	79
S. Kongmany, G.-B. Shim, O-B. Yang: <b>Hydrodechlorination of silicon tetrachloride to trichlorosilane</b> .....	89
A. Aguilera-Alvarado, J.A. Cervantes-Jauregai, E. Leon-Rodríguez, R. Pérez-Alonso: <b>CFD hydrodynamics Study for HCl(g) removal in TEOS synthesis for three different reactor configurations</b> .....	97
L. Mendez- , A. Rodríguez, M. Dolores Romero, G. Ovejero: <b>Modelling and simulation of silicon hydrochlorination in a fluidized bed reactor</b> .....	115

Ju Young Lee, Hee Young Kim, Yong-Ki Park, Won Choon Choi, Na Young Kang, Min Ku Jeon, O-Bong Yang: <b>Catalytic hydrodechlorination for converting silicon tetrachloride(STC) to trichlorosilane(TCS) .....</b>	<b>139</b>
N. Auner, B. Pandey: <b>Polysilanes – backbones for new silicon based technologies .....</b>	<b>141</b>
V. Stanjek, R Weidner: <b>Alpha – Silanes .....</b>	<b>157</b>
J. Nyhus: <b>Solar grade silicon - History, chemistry and standardization .....</b>	<b>169</b>
J. Bullon, R. Ordás, T. Margaria, A. Miranda, J. M. Miguez, A. Perez, A. Souto: <b>Ferrosolar project, situation and perspectives .....</b>	<b>179</b>
R. Kvande: <b>Solar cells manufactured from silicon made by the Solsile process .....</b>	<b>191</b>
K. Morita, Y. Nishi, Y. Ohshima, X. Ma and Y. Kang: <b>Growth control of Si crystals during solidification of Si-based melts ...</b>	<b>203</b>
K. Putyera, X. Wang, J. Liu, D. Leblanc, <b>Mapping of trace elements in compensated silicon samples under dynamic conditions .....</b>	<b>211</b>
A. Podolian, A. Nadtochiy, O. Korotchenkov, T. Shevchenko, V. Schlosser, J. Schmid, E. Kancsar, <b>The potential of sonicated water in the cleaning processes of silicon wafers: Current challenges and future prospects .....</b>	<b>221</b>
G. Schüssler: <b>Development of silicon single crystals. A personal view on innovation and innovative silicon future .....</b>	<b>233</b>
T. Veltkamp: <b>Wafer-based crystalline silicon modules at 1 €/wp: final results from the crystalclear integrated project .....</b>	<b>251</b>
Hee Young Kim, Kyung Koo Yoon, Yong-Ki Park and Won Choon Choi: <b>Continual preparation of polysilicon granules with a new fluidized bed deposition process .....</b>	<b>259</b>
G. del Coso, C. del Cañizo, A. Luque,,: <b>How to diminish the radiation loss in a Siemens- type reactor .....</b>	<b>261</b>

S. Reber, S. Riepe: <b>UMG-Silicon: A scientific view on the status and challenges for UMG-Silicon on its way to high volume application .....</b>	<b>269</b>
M. Kambara and T. Yoshida: <b>High yield silicon deposition under mesoplasma condition for a next generation Siemens technology .....</b>	<b>271</b>
W. O. Filtvedt, A. Holt: <b>Use of FBR technology for production of silicon feedstock .....</b>	<b>279</b>
D. Leblanc, K. Putyera: <b>New resistivity model for silicon according to the weak electrolyte solution theory .....</b>	<b>285</b>
K. Petter, Y. Ludwig, R. Bakowskie, M. Hlusiak, S. Diez, L. Ritz, R. Lantsch, S. Rupp, A. Freudenberg, S. Scholz, V. Hoffmann: <b>Latest results on production of solar cells from UMG-Si feedstock.....</b>	<b>305</b>
N. Nemchinova: <b>The study of metallurgical silicon refined by crystallization methods .....</b>	<b>315</b>
J. de Linde: <b>Silicon - opportunities and challenges in a new decade .....</b>	<b>325</b>