

Molten Salts Discussion Group

Newsletter August 2012

Summer Meeting 2012 - 3rd International Round Table on Titanium Production in Molten Salts

The MSDG Summer Meeting was held 17 to 19 July at Fitzwilliam College, Cambridge and was host to the 3rd International Round Table on Titanium Production in Molten Salts.

The meeting was opened by MSDG chairman Andy Abbott who thanked Andrew Doherty, Robert Watson, Derek Fray, George Chen and Carsten Schwandt for doing all of the preparatory work for the Round Table. Derek Fray welcomed participants on behalf of Fitzwilliam College and after the safety briefing invited attendees to join a guided tour of the city on Wednesday afternoon.

The meeting was attended by 29 participants with representation from Europe, Scandinavia, North America, China, Korea and Japan.

Papers

The equilibrium between titanium metal and its ions and electrochemical deposition from molten chlorides
Guojing Hu, Qiuyu Wang, Shuqiang Jiao & Hongmin Zhu

Titanium deposition from molten chloride electrolytes by using titanium oxycarbide anode and liquid cathode

Geir Martin Haarberg, Ole S. Kjos, Ana Maria Martinez & Karen S. Osen

Molten salt based extractive metallurgy practice with the use of solid-oxide oxygen ion-conducting membranes

X. Zou, X. Lu, Z. Zhou, C. Li & W. Ding

Cathodic deposition of titanium in chloride melts

H. Åsheim, X. Ning, H. Zhu & G.M. Haarberg

Titanium-based ionic liquids

Andrew P. Abbott & Gero Frisch

The inter-phase selective corrosion of a gamma-TiAl alloy in a molten salt environment at high temperature

Wenyue Zhao, Bowen Xu, Yue Ma & Shengkai Gong

Trials of inert anodes for the electrochemical reduction of TiO₂ powders

R. F. Watson & A. H. Jones

Investigation of growth mechanism and kinetics of titanium borides formed on titanium substrates by electrochemical boriding

G. Kartal & S. Timur

Cathode pore-forming: Theoretical and experimental studies for the fast titanium production via the FFC Cambridge process

W. Li, X. B. Jin & G. Z. Chen

The Production of Titanium Alloys via the FFC Cambridge Process

Rohit Bhagat, Gregory Gibbons, Kartik Rao, David Dye & Richard J. Dashwood

Fast Reduction Starting from CaTiO₃

R. O. Suzuki, N. Kobayashi, K. Kobayashi, K. Egawa & T. Kikuchi

The electro-deoxidation of dense titanium dioxide precursors in molten calcium chloride giving a new reaction pathway

D. T. L. Alexander, C. Schwandt & D. J. Fray

Electrochemical reduction of metal oxides in LiCl molten salt: From bench scale to laboratory scale

S. M. Jeong, E. Y. Choi & J. M. Hur

The Chinuka Process: From ore to pure

Daniel Jewell, Michael Kurtanjek & Derek Fray

The production of metals and metal alloys

Ian Mellor

Avoidance of in situ Perovskitisation on electro-reduction of solid TiO₂ in molten CaCl₂: Electro co-reduction with other metal oxides

Di Hu & G. Z. Chen

The abstracts can be downloaded from the MSDG website.

Forthcoming conferences

3rd Asian Pacific Conference on Ionic Liquids & Green Processes (APCIL 2012)

17 to 19 September 2012, Beijing, China

See: <http://apcil12.org/dct/page/65540>

PRiME 2012 - Pacific Rim Meeting on Electrochemical & Solid-State Science

Joint meeting incorporating the 222nd Meeting of The Electrochemical Society & the 2012 Fall Meeting of The Electrochemical Society of Japan

07 to 12 October 2012, Honolulu, Hawaii

See: <http://www.electrochem.org/meetings/biannual/222/222.htm>

NuMat 2012: the Nuclear Materials conference

21 to 25 October 2012, Osaka, Japan

See: <http://www.nuclearmaterialsconference.com/index.html>

MSDG Christmas Meeting

Monday 17 December 2012, Royal Society of Chemistry, Burlington House, Picadilly, London, UK

See: Details will be announced on the MSDG website <http://www.ch.qub.ac.uk/msdg/>

MSDG Summer Meeting

MSDG 50th anniversary symposium, 09 to 11 July 2013

See: Details will be announced on the MSDG website <http://www.ch.qub.ac.uk/msdg/>

MSDG Christmas Meeting

Monday 16 December 2013, Venue to be confirmed.

See: Details will be announced on the MSDG website <http://www.ch.qub.ac.uk/msdg/>

MSDG Support Fund

Members are reminded that bursaries to help towards the cost of attending meetings on molten salts and/or ionic liquids are available from the MSDG. Those interested in applying for a bursary should contact the Chairman, Andrew Abbott (E-mail: apa1@leicester.ac.uk).