

33rd Biennial Conference of the Institute for Briquetting and Agglomeration 2013

**San Francisco, California, USA
3-6 November 2013**

Editor:

Darrell Taulbee

ISBN: 978-1-63439-703-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2013) by the Institute for Briquetting and Agglomeration
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact the Institute for Briquetting and Agglomeration
at the address below.

Institute for Briquetting and Agglomeration
Box 802
Marquette MI 49855

Phone: (906) 273-0313

iba@charter.net

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Institute for
Briquetting and
Agglomeration



IBA Proceedings - Volume 33, 2013 – (Published 2014)

Keynote Address

Hopper Design Principles 1

Greg Mehos
Cabot Corporation

Presentations

Optimization of Compaction/Granulation Plants for Potassium Salts..... 11

Harald Günter - Köppern Aufbereitungstechnik GmbH & Co. KG,

Reduction of Production Costs for Kingsford Charcoal Briquettes 12

Jeremy Thuerk, Nicole Doan, and Don Swatling - Clorox Company

Briquetting and μ -Pelletising..... 22

Daniel V. Devid - Harsco Metals Metals and Minerals

Hot Briquetted Iron: Raw Material for Steelmaking and Ironmaking..... 30

Thomas P. Battle and Robert L. Hunter - Midrex Technologies

Recovery Process of Linz-Donawitz Steel Converter Sludge 42

Guilherme Santana Lopes Gomes and Victor Loureiro dos Santos
Hephaestus Metals LTDA, Brasil

Investigation of the High Temperature Reduction of the Iron Ore and Coal Extruded Briquettes (BREX) 51

A.M. Bizhanov, R.B. Steele, I. F. Kurunov, A.V. Pavlov, and O.V. Chadaeva, P.S.Chizhov
J.C.Steele&Sons, Inc.

Drying and Agglomeration of High-Moisture Coals and Coal Fines 63

Darrell Taulbee, Robert Hodgen, and Datta Patil
University of Kentucky Center for Applied Energy Research

<u>Drying of Agglomerated Materials</u>	82
Mike Whaley & Frank Rafter - Buhler Aeroglide Corporation	
<u>High Shear Agglomeration of Bentonite Clay: Holistic Approach to Scale Up</u>	92
Carrie Ripberger and David Gall - Chlorox Corporation	
<u>Production of Water-Resistant Coal-Biomass Briquettes Using Wood-Derived Chemicals</u>	100
Erich D. Dohm, Gerald H. Luttrell, Nino S. Ripepi, and Serhat Keles Virginia Polytechnic Institute and State University	
<u>Multi-Layer Tableting in the Detergent Industry</u>	114
Jacques Tomasi - Eurotab Technologies	
<u>Post Agglomeration & Pelletizing Processing Utilizing Fluid Bed Technology White Paper</u>	123
Michael Murphy - Carrier Vibrating Equipment, Inc.	
<u>Steel Briquettes or Pellets Production by Iron Ore Direct Reduction Through Electric Magnetic Induction and Hydrogenation</u>	129
Adilson Rodrigues da Costa, Guilherme Santana Lopes Gomes, and Victor Loureiro dos Santos Hephaestus Metals LTDA, Brasil	
<u>Introduction and Granulation Activities at SCF for IBA</u>	134
Vic Granquist - Surface Chemists of Florida,	
<u>New possibilities to influence pellet properties by Photo-Optical Particle Analyses</u>	143
Jan Lampke - HEM	