# **32nd Biennial Conference of the Institute for Briquetting and Agglomeration 2011**

New Orleans, Louisiana, USA 25-28 September 2011

ISBN: 978-1-62748-195-3

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© (2011) by the Institute for Briquetting and Agglomeration All rights reserved.

Printed by Curran Associates, Inc. (2013)

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

## **Table of Contents**

## **Keynote Paper**

1. "Briquetting of Steel Industry Waste Streams for Value Added Recycling"

John Bygrave, K.R. Komarek Wood Dale, IL

- 2. "Agglomeration in the Steel Industry: State of the Art and Future Challenges" .....% François Hanrot, Benoît Husson-Tissier ArcelorMittal R&D Maizières-lès-Metz,France
- 3. "Briquetting for the Steel Industry: Then and Now" \*\*\*\* &\$

Jim Torok Harsco Metals, East Chicago, IL

4. "Laboratory Production of Iron Ore Pellets for Gas-Based Direct Reduction" ..... &,

Urvashi Srivastava and Thomas Battle Midrex Technologies

5. "Stiff Extrusion Agglomeration of Arc Furnace Dust And Ore Fines for Recovery at a Ferro Alloy Smelter"

Rick Steele and Aitber Bizhanov J.C. Steele & Sons

6. "Improving the Flowability of Solids by Agglomeration"....) &

Greg Mehos Cabot Corporation Chris Kozicki FEECO International

7. "Drying of Materials in Preparation for the Formation of Briquettes, Pellets, and Agglomerates"

Chris Dolan Scott Equipment

8. "Preventing Unwanted Agglomeration in the Ribbon Mixer: A Case Study" .....\* '

Bruce Moechnig ADM Alliance Nutrition

9. "Co-Briquetting of Coal and Biomass: Overview of Externally- Funded Research at the Center for Applied Energy"\*\*\*\*\*

**Darrell Taulbee, Ph.D.** University of Kentucky

10. "Fertilizer Granulation with a Pipe Reactor – Design, Operation, and Opportunities" ....., %

Brett Rittenhouse Feeco International, Inc.

**11.** "Industrial Applications Silicate Binders"...., +

Janice Hamilton PQ Corporation

#### 12. "Disk Pelletization and Thermal Drying of High-Moisture Fine Coal"

Datta P. Patil, Brad O'Daniel, Brett May, and Darrell Taulbee University of Kentucky