

EXHIBIT 1037

URT EX1037
URT Umwelt und Recyclingtechnik v. Duesenfeld
IPR2024-00887



Gesellschaft für Verfahrenstechnik
UVR-FIA e.V.
Freiberg



Heimholtz Institute Freiberg for Resource Technology



[Helmholtz
Center Dresden
Rossendorf]



[Freiberg University of
Mining and Technology]

2013 Annual Processing and Recycling Conference

**November 13 and 14, 2013
Freiberg**

Presented by:

Gesellschaft für Verfahrenstechnik UVR-FIA e.V. Freiberg

Helmholtz-Institut Freiberg für Ressourcentechnologie

Conference Organizer

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**Gesellschaft für Verfahrenstechnik UVR-FIA e.V. Freiberg
and**

Helmholtz-Institut Freiberg für Ressourcentechnologie (HIF)

Venue:

Alte Mensa Conference Center, 09599 Freiberg, Petersstrasse 5

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Conference Program

Wednesday —November 13, 2013

8:00 am	<i>Registration of the participants</i>
9:00 am	Welcome
	<i>Morgenroth, H. (UVR-FIA GmbH, Freiberg):</i> Processing of lithium-mica greisen from Zinnwald
	<i>Espig, D.*; Morgenroth, H**; Plate, H.**; Ebert, W.*** (*Technologieberatung Freiberg, **UVR-FIA GmbH Freiberg, ***EFS GmbH, Oberwiesenthal):</i> Accompanying model calculations for the grinding and flotation of a fluorspar-barite ore
	<i>Leistner, T.*; Müller, M.**; Rudolph, M.*; Peuker, U. A.*,** (*Helmholtz-Institut Freiberg für Ressourcentechnologie — HIF, **TU BAF-MVAT):</i> Fundamental investigations on the selective separation of very fine particle systems using fluid–fluid flotation on the magnetite/quartz system
11:00 am	Coffee break
11:30 am	<i>Lanthaler, M.; Böhm, A. (Montanuniversität Leoben, Austria):</i> Development of a test stand for drying and combustion tests on iron ore pellets
	<i>Hesse, M.; Lieberwirth, H. (TU BAF — Institut für Aufbereitungsmaschinen):</i> Selective comminution for pre-concentration in the processing of ore
	<i>Reichert, M. (TU BAF — Institut für Aufbereitungsmaschinen):</i> Experiences in the comminution of ore with a roller mill
1:00 pm	Lunch

2:00 pm	<u>Mütze, T.</u> (TU BAF MVTAT): The elastic and plastic deformation behavior of material beds
	<i>Presentation cancelled</i>
	<u>Berghofer, M.</u> (BT-Wolfgang Binder GmbH — REDWAVE, A-Gleisdorf): Mineral sorting with REDWAVE-XRF (X-ray fluorescence analysis)
	<u>Huber, R.*</u> ; <u>Weingrill, G.**</u> (*Binder+Co AG, A-Gleisdorf, **Montanuniversität A-Leoben, Austria): Sensor-assisted sorting of industrial minerals in the UV/VIS/NIR wavelength range
4:00 pm	Coffee break
4:30 pm	<u>Coppers, M.</u> ; <u>Spiegelberg, F.</u> (Siebtechnik Mülheim): Pulsator jigs: major components in wet processing facilities for raw materials and excavated/recycling materials
	<u>Bräumer, M.</u> (mbb, Bendorf): New developments in hydrocyclone technology
	<u>Landsmann, R.</u> (Rheum GmbH, Remscheid): Examples of using sieving machines for classification in the bulk product and recycling industry
	<u>Bruder, U.</u> (Bruder Consulting, Hirschau): New developments in the area of sieve linings for wet and dry sieving in the fine matter range
7:00 pm	Evening event: Ratskeller Freiberg, Zum Fuhrmann (restaurant, entrance on Kaufhausgasse)

Thursday — November 14, 2013

8:00 am	<u>Bauerschlag, N.</u> (presenter), <u>Pretz, T.</u> (RWTH Aachen): Technical and economic success of the sorting of recyclable materials
	<u>Borowski, Chr.</u> , (FH Nordhausen): Bag Openers, Separators & Co.: new approaches in recycling technology
	<u>Merker, G.</u> (Merker-Mineral-Processing Schwerte); <u>K.-H. Bruch</u> (ScholzAlu Trading AG, Essingen); <u>Buntenbach, S.</u> (TriMin Consulting Ammerthal): On the processing of aluminum salt slag
	<u>Diekmann, J.*</u> ; <u>Sander, S.**</u> ; <u>Hanisch, Ch.*</u> ; <u>Sellin, G.***</u> ; <u>Kwade, A.*</u> (*TU Braunschweig Institut für Partikeltechnik, **Hosokawa Alpine AG, Augsburg, ***Elektrorecycling GmbH Goslar): Mechanical comminution in the recycling of lithium-ion batteries
10:00 am	Coffee break
10:30 am	<u>Trojosky, M.</u> (ALLGAIER Process Technology GmbH, Göppingen): Examples of using drying facilities in recycling processes
	<u>Eberhardt, C.</u> , <u>Rosen, R.</u> (HOSOKAWA ALPINE Compaction, Leingarten): Recycling of dust using a briquetting process
	<u>Schmalstieg, A.*</u> ; <u>Kühn, A.*</u> , <u>Nitsche, T.*</u> ; <u>Gubzhokov, R.**</u> ; <u>Wedell, R.*</u> (*IAP Berlin, **IFG Berlin): Online analytical procedures using XRF to determine element contents in the recovery of recyclable materials from sewage sludge ash
	<u>Rüssmann, D.*</u> ; <u>Heinrichs, S.*</u> ; <u>Feil, A.*</u> ; <u>Pretz, T.*</u> <u>Gisbertz, K.**</u> ; <u>Friedrich, B.**</u> (*I.A.R. RWTH Aachen, **IME RWTH Aachen): Increasing value creation when preparing non-ferrous metals from refuse combustion bottom ash using sensor-assisted sorting

Mechanical comminution in the recycling of lithium-ion batteries

Diekmann, J.*; Sander, S.; Hanisch, Ch.*; Sellin, G.***; Kwade, A.***

TU Braunschweig Institut für Partikeltechnik, **Hosokawa Alpine AG, Augsburg, *Elektrorecycling GmbH Goslar*

The shift in vehicle drive systems from combustion engines towards electrical drive systems is leading to an increasing demand for lithium-ion batteries and the raw materials used in their production. The recycling of these batteries thus presents a promising opportunity for reducing the future demand for primary raw materials, such as lithium, the valuable metals cobalt and nickel, and further components of lithium-ion batteries.

The flagship project LithoRec II, which is sponsored by the Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU), aims to develop the recycling process developed in the predecessor project into a pilot facility, with the comminution processes playing an important role in the process as a whole.

Our focus is the pre-crushing of battery cells or battery modules. The cells are opened, and the electrolyte to be processed is released. The flow of solids is converted into a form that enables the conveyance and storage of the comminution product as bulk material. Lithium-ion batteries make high demands on comminution equipment, given their material characteristics as composites, the electrical and chemical risk they pose, and their flammable contents. For the pre-crushing, an inert, airtight pre-crushing machine is therefore used. In a second comminution step, the recyclable components are broken down into coating materials, current collector foils, and housing components. In this process step, special requirements also arise due to the risk posed by the contents and the requirements of the subsequent sorting process. Key parameters for choosing a suitable comminution machine are discussed.