

The 1st International Workshop on Mechanochemistry of Metal Hydrides

30th May – 1st June 2018, Oslo

Wednesday, 30th May

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| 16.00 – 16.15 | Workshop opening (S. Sartori & J. Huot) |
| 16.15 – 17.15 | Keynote lecture

Etsuo AKIBA: <i>Introduction of defects and deformation to hydrogen storage materials</i> |
| 17.15 – 18.45 | Session I: Fundamentals of mechanochemical methods from the metal hydride perspective |
| 17.15 – 18.00 | Kaveh EDALATI: <i>High-pressure torsion and hydrogen storage materials</i> |
| 18.00 – 18.45 | Thomas KLASSEN: <i>Phase formation during high-energy milling</i> |
| 20.00 – 24.00 | Dinner (KARLSBORG Spiseforretning, Munkedamsveien 59B, Oslo) |

Thursday, 31th May

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| 9.00 – 10.30 | Session II: Mechanochemical synthesis of new hydrogen-containing materials |
| 9.00 – 9.45 | Andreas ZÜTTEL |
| 9.45 – 10.30 | Michel LATROCHE |
| 10.30 – 11.00 | Break |

11.00 – 14.45	Session III: Milling under reactive atmosphere (reactive milling) and liquid nitrogen temperatures (cryomilling)
11.00 – 11.45	Torben R. JENSEN: <i>Mechanochemical reactions of complex hydrides</i>
11.45 – 12.30	Bjørn C. HAUBACK: <i>Mechanochemical activation of hydride forming systems</i>
12.30 – 14.00	Lunch
14.00 – 14.45	Yumiko NAKAMURA: <i>Characterization of Mg-based materials synthesized by ball-milling</i>
14.45 – 16.00	Session IV: Severe plastic deformation of metal hydrides
14.45 – 15.30	Patricia DE RANGO
15.30 – 16.15	Walter J. BOTTA: <i>Hydrogen storage in metals and alloys processed by severe plastic deformation</i>
16.15 – 16.45	Break
16.45 – 18.00	Poster session
18.00 – 22.00	Science & Jazz Party (5 th floor at Oslo Science Park)

Friday, 1th June

9.00 – 10.30	Discussion: Where do we go from here?
10.30 – 11.00	Break
11.00 – 11.45	Session V: In-situ mechanochemical experiments
11.00 – 11.45	Yaroslav FILINCHUK: <i>Improved reaction cells for mechanochemical experiments followed in-situ by X-ray powder diffraction</i>
11.45 – 13.30	Workshop closing & lunch

List of presented posters:

- Jussara BARALE: *Synthesis and characterization of magnesium-iron-cobalt complex hydrides*
- Fermin CUEVAS: *Mechanochemistry and structural properties of Li-N-H and Li-Mg-N-H systems under hydrogen gas*
- Erica Michela DEMATTEIS: *Solubility in borohydrides: role of thermal treatment in mechanochemistry*
- Thierry GROSDIDIER: *Bulk and surface severe plastic deformation of the Ti10V75Cr15 alloy for hydrogen storage*
- Michael HEERE: *Energy research with neutrons (ERWIN) and installation of a neutron powder diffraction option at MLZ*
- Jacques HUOT: *Effect of ball milling and cryomilling on the microstructure and first hydrogenation properties of TiFe + 4 wt.% Zr alloy*
- Julián A. PUSZKIEL: *Investigations on the mechanochemical synthesis and evaluation of hydrides in the department of physical chemistry of materials – Argentina*

List of registered participants

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The workshop venue: **Oslo Science Park** (Forskningsparken), **Gaustadalléen 21**, 0349 Oslo,
the FORUM auditorium