

# Hydrometallurgy seminar

Oslo 17<sup>th</sup> March 2015

Hosted by Department of Chemistry, University of Oslo  
on behalf of the UiO-NTNU-IFE-SINTEF Hydromet project  
funded by The Norwegian Research Council  
in collaboration with industry partners  
Boliden Odda, Glenclore Nikkelverk and Yara.

Hydromet is a four year long project aiming at strengthening hydrometallurgy as a research and educational topic in Norway. In the Hydromet-project there is a close collaboration between Norwegian process industry and the leading Norwegian science institutions, University of Oslo (UiO), Norwegian University of Technology (NTNU), Institute of Energy Technology (IFE), and SINTEF. The process industries participating in the project are Yara, Glenclore Nikkelverk, and Boliden Odda. The objectives of Hydromet are twofold: To educate candidates of high competence for the hydrometallurgical industry and to help the industry utilize raw materials that currently are too low in quality with respect to abundance of the wanted element or compound, or have too much impurities. Furthermore, new methods should improve the environmental foot print.

Three candidates (PhDs + Post Doc) will be affiliated with Hydromet. They will all work together on research topics relevant for the process industries mentioned. Research topics comprise removal of fluorides and chlorides from process liquors, recovery or removal of toxic or unwanted constituents in process- or waste solutions, and cleaning of waste solutions of high flow rates.

The Hydromet project is managed by Department of Chemistry, UiO.

The seminar on the 17<sup>th</sup> March 2015 is the kick-off seminar at which we want to give our expect to strengthen bonds with fellow scientist, both abroad and domestic, that work within this field.

We look forward to meet you all in Oslo!

Best Regards, Dag Ø. Eriksen and Jon Petter Omtvedt

 **BOLIDEN**

  
Institutt for energiteknikk

 **NTNU**  
Det skapende universitet

**NIKKELVERK**  
A GLENCORE COMPANY

  
**YARA**

 **SINTEF**



# Program 17<sup>th</sup> March, 2015

08.30 – 09.00 Registration and coffee

## Morning session I (Chair: Jon Petter Omtvedt)

09.00 – 09.20 **Welcoming address**, Jon Petter Omtvedt

09.20 – 09.30 **Hydrometallurgy at NTNU**, presented on behalf of NTNU by J.P. Omtvedt

09.30 – 09.50 **Hydrometallurgy at UiO**, Dag Øistein Eriksen

09.50 – 10.10 **Hydrometallurgy at SINTEF**, Casper van der Eijk

10.10 – 10.30 **Hydrometallurgy at IFE**, Liv Stavsetra

10.30 – 10.50 Coffee/tea

## Morning session II (Chair: Tor Bjørnstad)

10.50 – 11.10 **Presentation of Yara**, Tom Rames Jørgensen

11.10 – 11.30 **Presentation of Boliden Odda**, Maria Førde Møll

11.30 – 11.50 **Presentation of Glencore Nikkelverk**, Ole Morten Dotterud

11.50 – 12.10 **Hydrometallurgy at KTH**, Stockholm, Kerstin Forsberg, Sweden

12.10 – 12.30 **Hydrometallurgy at Luleå Univ.**, Åke Sandstrøm, Sweden

12.30 – 13.30 Lunch

## Afternoon session I (Chair: Grethe Wibetoe)

13.40 – 14.00 **Hydrometallurgy at CTH**, Gothenburg, Stefan Allard, Sweden

14.00 – 14.20 **Raw material matters and hydrometallurgy development**,  
Justin Salminen, VTT, Finland

14.20 – 14.40 **Gas-diffusion electroprecipitation**,  
Xochitl Dominguez, VITO, Belgium

14.40 – 15.00 **Separation processes with “non-liquid” membranes: Is  
there anything potentially useful for hydrometallurgy?**  
Andriy Yaroshchuk, UPC, Spain

15:00 - 15:20 Coffee/tea

**Afternoon session II** (Chair: Liv Stavsetra)

15.20 – 15.40 **New resins from AkzoNobel**, Magnus Palmlöf, Sweden

15.40 – 16.00 **Prometia - A new network in metallurgy**, Jordi Bruno,  
Amphos 21, Spain

16.00 – 16.45 **Comments, questions, discussion**

16.45 – 17.00 **Concluding remarks**, Jon Petter Omtvedt

19.30 - **Dinner**

**We kindly thank our sponsor for generous contribution:**



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## Participants, hydrometallurgy seminar in Oslo, 17<sup>th</sup> March 2015

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