



Norwegian Chemical Society – Division of Chemical Education

# Chemical Society Annual Report to the EuCheMS Division of Chemical Education for 2013-2014

#### 1. Abstract

Some of the main activities of the Norwegian Chemical Society – Division of Chemical Education are mentioned in this report. The DCE has existed only a couple of years, so we have focused on the chemistry education in the Upper Secondary School until now.

# 2. National educational policy

In Norway, Chemistry is taught in Primary School and Lower Secondary School and in the 11<sup>th</sup> form (in Upper Secondary School) as a major part of the subject "Science". Included in this subject we also find e.g. Physics, Biology, Geology and minor parts of other subjects.

When the pupils are about 16-17 years old and attend the 11<sup>th</sup> form (the first year of Upper Secondary School) they may choose chemistry courses for the next (2) year(s). Usually they study the K1 course in the 12<sup>th</sup> form and the K2 course in the 13<sup>th</sup> form. The final exam of the K2 course is either oral or written (for selected pupils).

# 3. Events in chemical education

The Division of Chemical Education in NCS (NCS-DCE) was formally started in April 2012. The Board of the NCS-DCS has its annual meeting in October. Members of the Board are elected for 2 years. Half of the Board is elected every year.

The leader of the Board in 2014 is May Britt Stjerna. She is a teacher at Nesbru Upper Secondary School, just outside Oslo.

# 4. Activities of the Norwegian Chemical Society – Division of Chemical Education

The NCS-DCE Board usually has a meeting every month on Skype, since the members of the Board live different places in Norway. The annual meeting (with elections, etc.) is held in Oslo in October or November every year.

## **National Chemistry Exam discussions**

After the national written exams in the chemistry course K2 in Upper Secondary School (USS) in the Spring, we arrange evenings for USS chemistry teachers in May or June where we discuss the content of the exams. In May/June 2014 we had such arrangements in Oslo, Bergen, Stavanger, Trondheim and Tromsø.

## **Guldberg-Waage anniversary:**

In 2014, the Norwegian Chemical Society has celebrated the 150 year anniversary of the Guldberg-Waage law of mass equilibrium. Kristian J. Steffensen has represented the DCE in the committee, which also has members from other divisions of the NCS.

#### The celebration contains several elements:

- a. There was a symposium in Oslo on March 11, the date in 1864 when Cato M. Guldberg and Peter Waage presented their works for the first time.
- b. In the Autumn of 2014 there will be held other activities.
- c. The schools all over Norway have been offered three different chemistry kits where the pupils can study the law of mass equilibrium. The kits are so popular that more than 1 million NOK has been set aside to produce these kits and to distribute them all over Norway.

# 5. Publications

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#### 6. Liaison with the chemical industry

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# 7. International and European initiatives / representation

Kristian J. Steffensen represented the Norwegian Chemical Society – Division of Chemical Education at the Council meeting of EuChemS DivCEd in Limerick, Ireland in July 2013. (He is appointed for 3 years, but May Britt Stjerna will represent NCS-DCE at the Council meeting in July 2014.)

# 8. Other events and activities

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Røyken (near Oslo), July 8, 2014

# Kristian J. Steffensen

Teacher at Røyken Upper Secondary School

and member of the Board of the NCS-DCE