

# **Report of the German Chemical Society, GDCh, for the Division of Chemical Education** (Elisabeth Kapatsina, GDCh, and Ilka Parchmann, National Representative)

## **1. Abstract**

As in previous years, the division of chemical education of the German Chemical Society, GDCh, has held its annual conference with more than 200 participants, 42 lectures, 48 posters and 7 workshops. A new award for chemistry education has been launched and given to Prof. Dr. Michael Tausch for his outstanding experimental and conceptual work in the area of chemistry and light. The foundation of the chemical industries has greatly supported more than 400 teacher in-service training courses.

With regard to national educational policies, two large programs have been continued resp. started by the Federal Ministry of Education and Research offering several millions of Euros for each university whose proposals had been positively evaluated to improve university teaching in general and teacher education in particular.

## **2. National Education Policies**

Two large important programs have been launched by the Federal Ministry of Education and Research (BMBF), among others: (1) the second phase of the Program for Quality in University Studies ("Qualitätspakt Lehre") and (2) the Program for Raising Quality in Teacher Education ("Qualitätsoffensive Lehrerbildung"). Both provide millions of Euros for universities having submitted positively evaluated proposals. Regarding the first program, emphases are given to transition programs in the preparation and introductory phase of study courses like chemistry, as well as on career perspectives and career preparation. Teacher education programs aim to better link modules on content knowledge, pedagogical content knowledge and pedagogy, as well as the three phases of teacher education. Additional opportunities for teaching practice like microteaching in student labs are another important part of the program.

## **3. Activities of the National Chemical Society and Events in Chemical Education**

The division of the GDCh elected a new board in 2015; the current members are  
Prof. Dr. Brigitte Duvinage, Universität Potsdam, Didaktik der Chemie  
Prof. Dr. Klaus Griesar, Merck KGaA, Darmstadt  
Frank Herrmann, Philipp-Melanchthon-Gymnasium, Schmalkaden  
Prof. Dr. Harald Hillebrecht, Albert-Ludwigs-Universität Freiburg, Anorganische Chemie  
Prof. Dr. Marco Oetken, Pädagogische Hochschule Freiburg, Didaktik der Chemie (vice chairman)  
StD Ursula Pfangert-Becker, Gymnasium am Stadtgarten, Saarlouis  
Prof. Dr. Hans-Günther Schmalz, Universität zu Köln, Organische Chemie (chairman)

The annual conference of the division was held in Dresden, as part of the "GDCh-Wissenschaftsforum" from August 30<sup>th</sup> to September 2<sup>nd</sup> 2015. The motto was set as "Chemistry unites". Around 240 participants had been registered. The program provided 12 experimental lectures, 30 discussion talks, 48 posters and 7 workshops for teachers. The next conference will be held in September 2016 in Hannover.

For the first time, a new award was offered to chemical education scientists during the opening ceremony of the division conference, the "Heinz-Schmidkunz-Preis", named after one of the outstanding chemical educators in Germany. The award was given to Prof. Dr. Michael Tausch, Bergische Universität Wuppertal, for his innovative and outstanding experimental and conceptual work on chemistry with light.

#### **4. Publications**

The journal "Chemkon" published its usual four editions per year, presenting and distributing articles on chemical education research and practice, new experiments, information from the GDCh division and statements for discussion.

The annual report for 2015 (published early 2016) on chemistry education in the journal "Nachrichten der Chemie" focused on inclusive learning, especially on school level.

Further publications of interest for chemical education, though also in German, are the following:

- HighChem-Broschüre „Aktuelles aus der Wasserchemie“  
<https://www.gdch.de/publikationen/highchem.html>
- Beiträge zum Internationalen Jahr des Lichts auf [www.aktuelle-wochenschau.de](http://www.aktuelle-wochenschau.de)
- Empfehlungen der GDCh-Studienkommission zum Bachelor-Studium Chemie an Universitäten  
[www.gdch.de/positionen](http://www.gdch.de/positionen)

With regard to empirical research, scientists with expertise in educational research in the areas of chemistry, physics and biology published a book "Methoden in der naturwissenschaftsdidaktischen Forschung" (Methods in Education Research in Science), aiming to specifically support Master and PhD students.

#### **5. Liaisons with the Chemical Industry**

As in the previous years, the Foundation of the Chemical Industries supports the teacher in-service training program provided by seven centers in different areas of Germany. 422 courses had been offered in 2015 with a total number of 6324 participants. The feedback was overall very positive. One topic has been raised which should get special emphasis in the new program: safety in the chemistry classroom.