

press release

From fundamental research to applications - CeNS Innovation Award 2015 for junior nanoscientists

On July 17, the CeNS Innovation Award was awarded at the Center for Nanoscience (LMU Munich). One PhD student and one Master student received the award for their innovative work in application-oriented nanoscience. The awardees were selected by a top-class jury including amongst others Prof. Dr. Krubasik, president of the Deutsche Physikalische Gesellschaft. The award is worth € 9.000.

While most scientific prizes emphasize on findings and results in fundamental research only, the CeNS Innovation Award decidedly attaches importance to future applicability. The prize money is donated by four successful spin-offs of CeNS, all with their own company history directly connected to the idea of the award (attocube systems AG, ibidi GmbH, Nanion Technologies GmbH und NanoTemper Technologies GmbH). The prizes honor creative junior researchers, whose results are not only interesting for fundamental research but also promising for technological applications.

Aurora Manzi from the group of Professor Jochen Feldmann (LMU) received an award worth € 3.000 in the category "Master's thesis". In her thesis, Aurora Manzi explored in cooperation with GE the usage of solar energy as an alternative to fossil fuels: She investigated the photocatalytic reduction of the greenhouse gas CO₂ to methane, a valuable energy source. To this end, she developed an innovative, light-induced method to produce nanostructured semiconductors consisting of copper sulfide nanorods. These nanorods are capable of reducing CO₂ to carbon monoxide and methane under a broad visible light range. This method could contribute to developing efficient techniques for the transformation of solar energy into chemical energy sources. The 25 years old student, who originally comes from Italy, is currently continuing her academic career as a PhD student in Professor Feldmann's group.

In the category "PhD thesis", the jury awarded the prize worth 6.000 EUR to Dr. Christof Mast from the group of Professor Dieter Braun (LMU). In his work Christof Mast could implement the amplification and self-enhancing, sequence-selective escalation of DNA length in a thermal trap for the first time. Due to minimal sample volumes, high sensitivity, and sequence selectivity, this method has the potential for rapid and continuous evolution of so called aptamers. Aptamers are short, single-stranded DNA or RNA molecules which specifically bind to targets and can thus selectively inactivate proteins within the cell. Thus, the technique developed by Christof Mast could contribute significantly to the faster development of targeted drugs. Dr. Mast's results have been published in renowned scientific journals and in a patent specification.

July, 21 2015



Prof. Ulrich Schollwöck, Prof. Khaled Karraï, Aurora Manzi, Dr. Christof Mast, Prof. Tim Liedl, Dr. Susanne Henning (from left to right)

your contact:

attocube systems AG
Verena Kuemmerling
Koeniginstrasse 11a
D-80539 Munich

Tel. +49 – 89 – 2877 809 278
verena.kuemmerling@attocube.com
www.attocube.com