# MATERIALS CHAIN

# INFOMAIL September 2019



# September 30, 2019



### **Events**

### **Materials Chain Early Career Researchers' Forum**

On September 16, 2019, the first Materials Chain Early Career Researchers' Forum took place at TU Dortmund University. The forum stimulated scientific exchange amongst young scientists, encouraged them to initiate joint projects and gave an overview of funding possibilities generally available for early career researchers.



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## **Latest News**

## Junior Professor Sebastian Henke Researches Porous Glasses

Junior Prof. Sebastian Henke and his team from the Faculty of Chemistry and Chemical Biology at TU Dortmund University have developed novel porous glasses that are thermally stable and can separate gas molecules due to different diffusion rates. The glasses will now contribute to the development of new membrane technologies for the energy-efficient separation of technologically important gases. The results of Henke and his team were recently published in the renowned journal "Journal of the American Chemical Society"



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# Thomas Hammerschmidt appointed as editor of 'Machine Learning: Science and Technology' (MLST)

ICAMS group leader Thomas Hammerschmidt is appointed as founding member of the Editorial Board of the new IOP journal 'Machine Learning: Science and Technology' (MLST). The mission for MLST is to uniquely bridge the application of machine learning techniques across a broad range of subject disciplines (including physics, materials science, chemistry, biology, medicine, earth science and space science) with new conceptual advances in machine learning methods motivated by physical insights, through a single, high impact open access journal.



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#### **Laboratory on the Icebreaker**

Minus 19° Celsius and Arctic Ocean instead of 40° and Pool: Four UDE scientists have just spent three weeks on a research vessel in Antarctica. As part of an international team, they studied the ice in the Antarctic during the winter, which is crucial for the pole but also for the global climate.



© Sea Ice Team, SCALE Antarctica Winter Cruise 2019

#### **Proper Cooling for the Climate**

Cooled food and drugs are very important for many humans. Simultaneously, keeping them cold harms the environment. Prof. Qiming Zhang explores how optimal chilling reduces the climate change. The winner of the Humboldt-Research-Award is guest of Prof. Dr. Doru C. Lupascu at the UDE-Institute of Materials Science.



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# Awards (Congratulation!)

#### Award for Sebastian Schlücker

Prof. Sebastian Schlücker from the Faculty of Chemistry is keen to promote MINT subjects as early as primary school. Together with colleagues, he therefore distributes specially developed experiments with appropriate teaching/learning material. His idea won him 3rd place in the UDE's small business management (sbm) start-up competition. The 2nd place went to doctoral students of Prof. Angelika Heinzel.



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# **Publication Highlights**

# Intrinsic Activity of Oxygen Evolution Catalysts Probed at Single CoFe2O4 Nanoparticles

El Arrassi, A. and Liu, Z. and Evers, M.V. and Blanc, N. and Bendt, G. and Saddeler, S. and Tetzlaff, D. and Pohl, D. and Damm, C. and Schulz, S. and Tschulik, K.

Journal of the American Chemical Society 141 9197-9201 (2019) more

#### Photon Noise Suppression by a Built-in Feedback Loop

Al-Ashouri, A. and Kurzmann, A. and Merkel, B. and Ludwig, Ar. and Wieck, A.D. and Lorke, A. and Geller, M. *Nano Letters* 19 135-141 (2019) more

# Control of Metal-Organic Framework Crystallization by Metastable Intermediate Pre-equilibrium Species

Yeung, H.H.M. and Sapnik, A.F. and Massingberd-Mundy, F. and Gaultois, M.W. and Wu, Y. and Fraser, D.A.X. and Henke, S. and Pallach, R. and Heidenreich, N. and Magdysyuk, O.V. and Vo, N.T. and Goodwin, A.L.

Angewandte Chemie - International Edition 58 566-571 (2019) more

See all publications

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