

PRESS RELEASE

Number 09

WACKER Presents Animations Explaining the Chemistry of Carbohydrates at didacta

Munich/Cologne, February 19, 2019 – at the didacta education trade show, Wacker Chemie AG is presenting new animations for the CHEM₂DO[®] school experiment kit – experimenting with silicones and cyclodextrins. These learning resources explain curriculum content – such as Fehling’s test – at a molecular level. They have been developed for use in chemistry lessons and are available at www.chem2do.de. didacta will take place in Cologne from February 19 to 23, 2019.

WACKER’s CHEM₂DO[®] school experiment kit was introduced in 2012. Since then, WACKER has continued to develop the eight experiments on silicones and cyclodextrins together with chemistry education specialists. 2018 saw the introduction of animations about silicone chemistry. These are now being followed by learning resources on the topic of ring-shaped cyclodextrins, which consist of glucose units. Thus, www.chem2do.de offers animations on the chemistry of carbohydrates, which are an important curriculum topic.

The experiment kit follows the principles of “understanding through individual experimentation and guided reflection.” The first step is therefore always the experiment. It’s only when pupils conduct their own experiments that they can feel the fascination of chemistry. They develop the curiosity required to cut through the theory and understand chemical reactions.

The animations help to deepen this understanding. The experiment is first demonstrated with a video. Then at key points throughout the video, the focus switches to particle level: The animation illustrates what is happening in the chemical reaction on a molecular level. As a result, pupils can enhance their knowledge and understand the relationship between an experiment, the reaction it is based on and chemical formulae.

Animations on www.chem2do.de:Silicones:

- Hydrophobic properties
- Combustion reaction (rubber, silicones)
- Polyaddition reaction and changes in material properties

Cyclodextrins:

- Structure based on glucose units, ring shaped, cavity
- Fehling's test (reaction mechanism)

WACKER's Experiment Kit for Schools

Teachers receive the experiment kit free of charge after completing accompanying training on the topic "CHEM₂DO[®] – experimenting with silicones and cyclodextrins." The courses are conducted across Germany at the German Chemical Society's teacher training centers.

The experiment kit includes:

- Eight proven experiments on silicones and cyclodextrins
- Advice for teachers (experiment instructions, tasks, background technical information)
- Hazard assessment

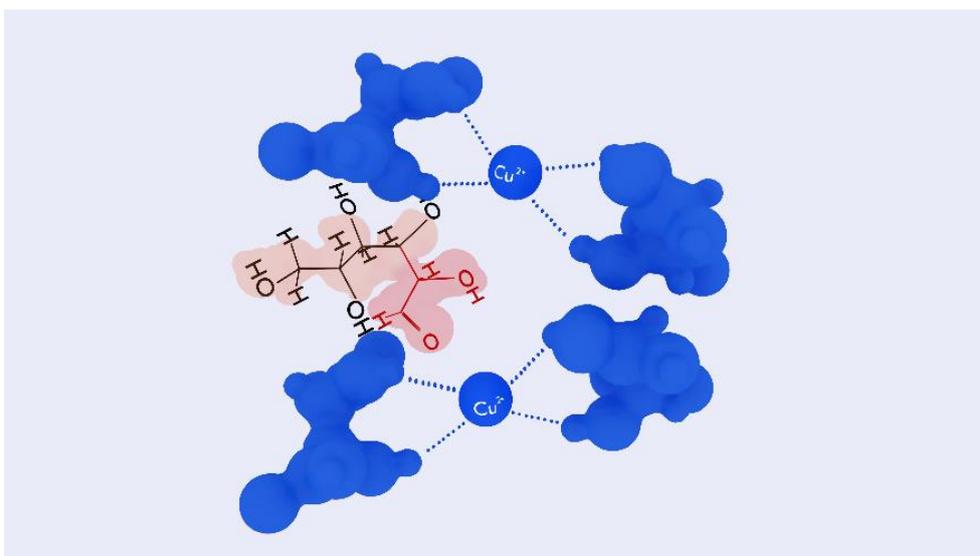
- Chemicals (basic equipment, re-orders free of charge)

CHEM₂DO® is a long-term collaboration between WACKER and chemistry education experts from Munich's Ludwig-Maximilian University, the University of Wuppertal and the University of Münster. The first predecessors of the current experiment kit were issued more than 20 years ago.

Visit WACKER at didacta 2019 in Hall 8.1, Booth D.059.



Provided the relevant training has been completed, the WACKER experiment kit is available free of charge. The courses take place throughout Germany. (Photo: Wacker Chemie AG)



Animations about the experiments enhance chemical understanding: A still from an animation on Fehling's test. (Photo: Wacker Chemie AG)

The WACKER experiment kit and the website are currently only available in German.

For further information, please contact:

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The company in brief:

WACKER is a globally-active chemical company with some 13,800 employees and annual sales of around €4.9 billion (2017).

WACKER has a global network of 23 production sites, 21 technical competence centers and 50 sales offices.

WACKER SILICONES

Silicone fluids, emulsions, rubber grades and resins; silanes; pyrogenic silicas; thermoplastic silicone elastomers

WACKER POLYMERS

Polyvinyl acetates and vinyl acetate copolymers and terpolymers in the form of dispersible polymer powders, dispersions, solid resins and solutions

WACKER BIOSOLUTIONS

Biotech products such as cyclodextrins, cysteine and biologics, as well as fine chemicals and PVAc solid resins

WACKER POLYSILICON

Polysilicon for the semiconductor and photovoltaic industries