

# CMWS WATER DAYS 2024

Location: FLASH seminar room, building 28c, DESY  
Programme

## Monday February 26

### Welcome and General CMWS Session

- 13:30 *Registration*  
*Chair: Melanie Schnell (DESY/CAU)*
- 14:00 H. Dosch, F. Kärtner Welcome to DESY and Photon Science
- 14:20 M. Schnell (DESY/ CAU) Status & Future of CMWS
- 14:40 S. Trippel, S. Techert, C. Goy, S. Bari CMWS Infrastructure updates at DESY
- 15:20 H. C. Wille (DESY), G. Grübel (EuXFEL) Topical water calls for PETRA III, FLASH and European XFEL, Discussion
- 15:50 *Coffee break*  
*Chair: Iain Wilkinson (HZB)*
- 16:20 S. Toleikis (DESY) FLASH2020+, FLUXS instrument for liquids
- 16:40-17:25 N. Prisle (U Oulu) Water - the "dark matter" of the atmosphere

### 18:00 Poster Session & Dinner

## Tuesday February 27

- Chair: Annette Pietzsch (HZB)*
- 09:00 A. Gierke (DESY/ EuXFEL) A liquid jet environment for studying pre-hydrate cage formation at EuXFEL
- 09:20 R. Bauer (DESY/ TU Freiberg) Prehydrate cages to bentonite gel formation: a look at water (in) structures
- 09:30 L. Mohrbach (DESY) Reduced thermal conductivity of water ice in planetary interior conditions
- 10:00 *Coffee break*  
*Chair: Bridget Murphy (CAU)*
- 10:30 J. Küpper (DESY/ UHH) Ultrafast elementary steps of microsolvation and radiation-protection dynamics
- 11:15 P. Huber (DESY/ TUHH) BlueMat: A Research Initiative on Water-Driven Materials
- 11:35 F. Matroodi (Elettra Sincrotrone) Probing hydration water and ionic aggregation by UV resonance Raman spectroscopy
- 12:00 **Group picture**
- 12:10 *Lunch break*  
*Chair: Eva Gougoula (DESY)*
- 13:25 J. Valerio (EuXFEL) Aqueous sample delivery at EuXFEL
- 13:45 E. J. Mascarehnas (HZB) Time-resolved X-ray absorption spectroscopy of the photoaquation reaction of cobalt(III) hexacyanide
- 14:05 J. Fraxedas (ICN2 Barcelona) Collective motion of microfabricated Nafion micromotors in water
- 14:25 S. Mukherjee (RU Bochum) Atomistic simulations quantify thermodynamic contributions of water and proteins in the liquid-liquid phase separation of proteins
- 14:45 *Coffee break*  
*Chair: Sergio Speciale (GFZ)*
- 15:15 V. Artemov (EPFL)
- 15:35 V. V. da Cruz (HZB) Aqueous Interfaces for Sustainable electric energy storage  
Extracting hydrogen-bonded potential energy curves from vibrationally-resolved RIXS measurements of water and amorphous ice
- 15:55-16:45 V. Filiz (Hereon), M. Usman (TUHH) Joined talk: "Polymer membranes for water treatment" and "Conductive membranes for removal of organic water constituents in drinking water treatment"

**19:00 Public evening lecture (in German), DESY Auditorium, building 5:**

**"Energieträger Wasser"**  
Simone Techert (U Göttingen/DESY)



## Wednesday February 28

*Chair: Florian Trinter (FHI)*

- 09:00 [D. Diaman \(DESY/ FHI Berlin\)](#) Electron-nuclear coupling of glycine in aqueous solution  
09:20 [F. Berggötz \(DESY\)](#) Investigating chiral molecules in the gas phase using microwave spectroscopy  
09:40 [E. Breynaert \(KU Leuven\)](#) Strategic deployment of CMWS in funding initiatives

10:00 *Coffee break*

*Chair: Claudia Goy (DESY)*

- 10:40 [F. Caddeo \(DESY\)](#) Photocorrosion in  $\text{CuBi}_2\text{O}_4$  monitored by operando surface-sensitive x-ray scattering  
11:00 [L. Inhester \(DESY\)](#) Ultrafast x-ray absorption spectroscopy of liquid water: Insights into electron solvation and interpretation of x-ray emission spectrum  
11:20 [L. Petterson \(U Stockholm\)](#) Structure Determination by Simultaneous Fitting to Multiple Experimental Data Sets  
12:05-12:15 Wrap-up

**After 14:00 Pillar Meetings**