CMWS

CENTER FOR MOLECULAR WATER SCIENCE

APPLY NOW

Joint PhD position opening at ETH-Zurich and DESY-Hamburg

Time-resolved attosecond chronoscopy of electron dynamics in water clusters

Detailed knowledge about photo-induced electron dynamics in water is key to the understanding of several biological and chemical mechanisms, in particular for those resulting from ionizing radiation. In this context, low-energy electrons have been shown to play a central role in DNA damage. To date, no time-resolved studies of electron scattering in water clusters have been reported, though low-energy electron scattering in water has been studied extensively, mainly in terms of scattering cross sections and channel-resolved energy losses.
We plan to combine the attosecond setup @ DESY-Hamburg with a molecular source of large water clusters developed at ETH-Zurich, with the aim of measuring electron scattering times in water clusters with *attosecond resolution*.
The PhD project will focus on the above-mentioned topic and will contribute four years of research to realize such investigations. The PhD position is opened in the framework of the collaborative Center for Molecular Water Science (CMWS) and the student will be recruited in a joint appointment between ETH and DESY.

Deadline 31st January 2021

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