



Seminario di Dipartimento

20 Febbraio 2020, ore 10 am, edificio NEC (CU032), primo piano, Aula VIII

Prof. Vitali Zhaunerchyk

Department of Physics, University of Gothenburg, Sweden

Experimental and theoretical studies of mid-infrared signatures of gas-phase homo- and hetero-chiral molecular dimers

Mid-infrared (mid-IR) spectroscopy is a powerful tool to study structures of gas-phase molecules and their aggregates at the atomic level. Despite the fact that mid-IR spectroscopy employing linearly-polarized light cannot distinguish between enantiomers of a chiral molecule, it can be used to probe diastereomer specific IR signatures of dimers of chiral molecules depending on whether they comprise homo- or hetero-chiral moieties. Such an approach can potentially be implemented as an analytical tool for analysis of enantiomeric purity of samples. In my presentation I will show results of our recent studies for dimers of simple organic molecules, particularly, amino acids. The results were obtained experimentally employing the CLIO and FELIX free electron lasers as IR light sources in combination with quantum chemical methods.

Proponente: Prof. Stefano Stranges