

TOWARDS DISTANT DEPENDENT INNER-SHELL PHOTOELECTRON CIRCULAR DICHROISM

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Photoelectron circular dichroism (PECD) is one of the most powerful methods for investigating molecular chirality in the gas phase. PECD is a forward-backward asymmetry of emitted photoelectrons from chiral molecules after interaction with a circularly polarized light. The asymmetry can be observed even in randomly oriented chiral molecules. Site-selectivity of inner-shell photoelectrons enables the investigation on chirality as a function of a distance from a stereocenter. It is still unknown how the magnitude of PECD is evolving as a function of a distance between the emission site from the stereocenter. To be able to investigate this phenomenon, a series of specifically synthesized molecules was designed. In these molecules the distance between stereocenter and a marker atom can be increased while otherwise the structure of the molecule stays intact.

References

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