

## Application of Coincidence Spectroscopy to Inorganic Chemistry

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Threshold photoelectron-photoion coincidence spectroscopy (TPEPICO, iPEPICO) is an excellent method to obtain structural and thermochemical information on molecules. The enhanced properties of new synchrotron radiation (SR) sources now permit to study molecules that are only available in small quantities, among them reactive open-shell molecules or inorganic species. In this presentation I will summarize recent work performed at the SLS and SOLEIL storage rings focussing at species that contain N- (nitrogen) and/or B- (boron) atoms. Among them are small radicals like NH<sub>2</sub> and H<sub>2</sub>CN, but also more complex species like BN-heterocycles and metal complexes with B-ligands. The data permit an isomer-selective identification of the species and allow to extract ionization- and appearance energies that serve to derive binding energies through thermochemical cycles.

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