

The chemical properties of superheavy elements (SHE) are often surprising and unexpected when simple extrapolations from lighter homologs are done. Studies on chemical properties of SHE provide unique opportunities to get insight into the influence of strong relativistic effects on the atomic electrons and to probe “relativistically” influenced chemical properties and the architecture of the periodic table. After studies of elements 104-108, chemical studies have now reached copernicium (element 112) and flerovium (element 114). After giving short overview of the influence of relativistic effects on chemical properties, recent developments of SHE chemical studies in aqueous and gas-phases chemistry will be presented. At the end of my talk, the history of SHE chemical studies in Poland will be presented and the perspective of such studies based on the planned new research infrastructure will be discussed.