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Chemistry with Superheavy Elements at FLNR and at PSI

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The Superheavy Element Factory in Dubna offers unique prospects regarding future chemistry experiments with superheavy elements. The very first chemistry experiment at the Superheavy Element Factory will focus on the chemical characterization of elements copernicium ($Z=112$) and flerovium ($Z=114$) in their respective elemental state, employing online gas adsorption thermochromatography. Further efforts are directed towards the first unambiguous chemical characterization of nihonium, based on through preparatory experiments with the lighter homolog thallium.

Here, we will present the planned commissioning experiment with copernicium and flerovium, followed by a status report regarding the chemical characterization of nihonium as well as future plans.

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