



Status and perspectives of chemistry studies with superheavy elements at the SHE factory in Dubna

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Here, we present the status and prospects of superheavy element research at the Flerov Laboratory of Nuclear Reactions (FLNR) and at the Paul Scherrer Institute (PSI). Firstly, we will discuss the preparations and detailed plans for the first chemistry experiment (i.e., elemental copernicium and flerovium) at the Superheavy Element Factory (SHE Factory) of the FLNR. In a second part, the progress regarding high-temperature alpha-spectroscopy will be shown. Higher stationary surface temperatures beyond 50°C (i.e., current limit with Si-based solid-state detectors), are of particular importance for the study of heaviest superheavy elements (e.g., nihonium) as well as relatively less volatile chemical elements and their compounds.