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## Experimental Prospects for Research on Superheavy Elements

*Monday, 19 August 2024 09:00 (30 minutes)*

What are the heaviest elements that can exist or be created in Nature? Does an 'Island of Stability' exist beyond uranium? Questions like these are often asked in connection with Long Range Plans of nuclear physics communities or large-scale accelerator facilities. Information on the chemical and physical properties of superheavy elements ( $Z > 103$ ) or nuclei is notoriously difficult to collect, mainly because of the low production and thus observation rates. This in turn limits experimental constraints of nuclear structure theory in particular.

Ongoing efforts and future possibilities to improve the experimental situation will be presented in terms of observational rates, ground-state nuclear masses and spins, decay modes and decay spectroscopy, to name but a few.

### Funding Agency

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