

## Current state of the KOMAC facilities and beam measurement systems

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The Korea Multi-purpose Accelerator Complex (KOMAC) has provided high energy proton beams since 2013 and low energy ion beams since 2015. In 2025, the facility will begin radioisotope production and operate a high energy neutron source, thereby the facility provides high energy protons and neutrons also various low energy ion species. High energy beams are applied to atmospheric and space radiation effects research, as well as the theranostic radioisotope production such as Cu-67 and Ge-68, whereas low energy ion beams may be explored for the development of low dimensional materials. Detection systems include the Artificial Intelligence-based beam uniformity monitoring, pA level measurement for ultra low flux ion beams, and complementary neutron detectors that yield results comparable to leading international facilities. These capabilities establish a versatile platform for both fundamental research and applied technology, fostering international collaboration and industrial innovation. This presentation introduces the current status of the facilities developed for diverse purposes and describes the measurement systems employed in their operation.

### Paper submission Plan

Yes

### Best Presentation

No

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