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[3005] A Wien filter for the ILIAMS facility at VERA

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A Wien (velocity) filter for the Ion Laser InterAction Mass Spectrometry (ILIAMS) facility at the Vienna Environmental Research Accelerator (VERA) was characterized and commissioned.

First, simulations via the ion beam simulation program SIMION were done to find the best position in terms of mass separation for a Wien filter within the facility.

After installation of the Wien filter, commissioning measurements were taken with uranium fluoride and chlorine ion beams. A separation between ^{35}Cl and ^{37}Cl of 2.5 could be observed. First results with the much heavier uranium fluorides revealed a delicate dependence of the separation on the tuning of the ion optical elements.

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