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【706】 Design of the interaction chamber for ACHIP at PSI

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ACHIP is an international collaboration, funded by the Gordon and Betty Moore Foundation, whose goal is to demonstrate that laser-driven accelerator on a chip can be integrated to fully build an accelerator based on dielectric structures.

PSI will provide access to the high brightness electron beam of SwissFEL to test structures, approaches and methods towards achieving the final goal of the project.

In this contribution we describe the design of the interaction chamber, in collaboration with EPFL, to perform the proof-of-principle experiments. We will present the positioning system for the samples, the magnets focussing the beam to sub-micrometer dimensions and the diagnostics to measure beam properties at the interaction point.

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