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## Evaluation of the in-situ photocathode handling for SRF photoinjector of SEALab

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The handling of very sensitive bi-alkali antimonide photocathodes as the electron source for the SRF photoinjector of SEALab is a critical procedure for its operation. After the growth of the photocathode, they have to be transferred in-situ under extreme UHV conditions using a vacuum suitcase and under particulate-free conditions to avoid the contamination of the SRF cavity. Therefore, we performed an in-situ photocathode transfer between two photoelectron spectroscopy systems to study the impact of the varying vacuum conditions on the surface chemistry of the photocathode. The photocathode substrate (plug) has to be transferred from the sample holder onto the plug holder (insert) at the SRF photoinjector. At the transfer system, which was setup under particulate free conditions in the clean room, we installed an in-situ particulate counter to investigate the appearance of particulates by transferring the plug onto the insert under vacuum conditions.

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### Footnotes

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