FCC Week 2018



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## A facility for studying SEY from LASE surfaces at cryogenic temperatures

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The Future Circular Collider (FCC-hh) will have a beam screen with T between 20 and 60 K. Electron cloud mitigation will be critical for the FCC-hh and it has been specified that the wall material needs to have a Secondary Electron Yield (SEY) < 1. Since the LASE surfaces with SEY<1 are the baseline electron cloud mitigation technique, it is critically important to study the behaviour of the LASE surfaces at cryogenic temperatures with and without cryosorbed gas. The FCC-hh beam screen made of copper laminated stainless steel will be partially treated with LASE in two (in dipoles) or four (in quadrupoles) strips. In this talk we will report the design and commissioning of the cryogenic facility for SEY studies at Daresbury Laboratory and the first results of LASE samples at 20-60 K with and without cryosorbed gasses on the surface.

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