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# Status of the STRIDENAS Beam Profile Monitor for Low-Charge Electron Beams

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A novel type of beam profile monitor called STRIDENAS, dedicated to the detection of low-charge electron beams, is currently being developed at DESY. It aims at bridging the gap between conventional multi-pC scintillating screens and single particle detectors from high energy physics. This is needed, for example, for studies on novel acceleration techniques at the ARES electron linac, such as dielectric laser acceleration (DLA), which typically feature a sub-pC charge. STRIDENAS is based on silicon strip sensors from the ATLAS inner tracker upgrade and is being developed to measure low-charge distributions with a spatial resolution of around 100 micrometers. Sensor characterization and first proof-of-principle tests with a detector prototype using single electrons from the DESY II Test Beam Facility have successfully been performed. Here, the latest advances and future steps towards first proof-of-principle experiments using electron bunches from ARES are presented.

**Primary author:** JASTER-MERZ, Sonja (DESY)

**Co-authors:** GIESTEIRA, Filipe (DESY); Dr BURKART, Florian (DESY); HAUSER, Jakob (DESY); Mr STANITZKI, Marcel (DESY); ASSMANN, Ralph (DESY); Dr LEDERER, Sven (DESY)

**Presenter:** JASTER-MERZ, Sonja (DESY)

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