



Contribution ID: 24

Type: talk

## Dielectric wakefield R&D programme at Daresbury Laboratory

*Monday, September 25, 2017 4:30 PM (20 minutes)*

Construction of CLARA Phase I at Daresbury Laboratory is now completed and the machine is being currently commissioned. Combined with already existing VELA beamline and recently upgraded experimental beam area, this new facility is now capable of conducting a variety of experiments including advanced accelerator concepts R&D. The beam area is further enhanced by the availability of high power TW femtosecond laser. In its current state, the facility is capable of generating sub-ps electron bunches with up to 250pC bunch charge, ~50MeV beam energy and at a rep-rate of 10Hz (with further upgrade to 400Hz).

As part of the overall exploitation programme, the dielectric wakefield R&D will be conducted at CLARA/VELA facility. First steps include generation of tunable THz radiation and preliminary studies of dielectric dechirper for CLARA FEL.

In this presentation, a brief overview of CLARA/VELA facility is given, summary of electron beam characterisation and first results with planar variable gap dielectric wakefield structure is also presented.

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**Session Classification:** WG3\_Parallel

**Track Classification:** WG3 - Electron Beams from Electromagnetic Structures, Including Dielectric and Laser-driven Structures