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## Experimental demonstration of a continuously tunable terahertz source based on a dielectric wakefield structure

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A continuously tunable THz source driven by wakefields in a dielectric lined waveguide (DLW) has been experimentally demonstrated at the CLARA/VELA test facility at Daresbury Laboratory, UK. The source was tuned across the range 0.55 – 0.95 THz with a bandwidth of <50 GHz. The DLW was a planar structure with 25  $\mu\text{m}$  quartz dielectric layers and an aperture variable from 0.15 mm to 1.1 mm. Summary of experimental results on tunability range, modes spectra, pulse THz energy and comparison with theoretical predictions are presented.

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