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Energy Modulation in a Commercial Dual Grating Dielectric Structure

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We present the latest experimental results using a dual grating dielectric laser accelerator (DLA) to modulate 6 MeV electrons. The structure is composed of two commercially available gratings, mounted independently with variable gap size controlled by 3 piezo motors. A 780 nm laser is used to drive the 800 nm periodic structure with gap size on the order of 1 μm . These gratings are 4 mm long, enabling future long interaction experiments.

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