In the coming weeks the device will be tested further at facilities in Edinburgh and Sweden using femtosecond laser systems where the first benchmark results of CERSEI are expected to be obtained.

Several notable studies of PECD in the multiphoton ionisation regime have been undertaken in the last few years [3]. Fundamental studies of the electron dynamics can be probed, in addition, the possibility of using this in industrial solutions to determining enantiomeric excess is now feasible.

This project concerns itself with the assembly, characterisation and initial testing of a novel device in measuring PECD. The Chiral ElectRon Seperator for Enantiomer Identification, (CERSEI), takes a more elegant approach on a much smaller scale, to measure the PECD signal for a given sample. It does so using confinement of charged particles in electric and magnetic fields. It is also hoped to extend these studies into coincidence measurements using pulsed time of flight mass spectrometry of the ion fragments alongside detection of the liberated electrons.

In the coming weeks the device will be tested further at facilities in Edinburgh and Sweden using femtosecond laser systems where the first benchmark results of CERSEI are expected to be obtained.

References