

Figure 14: Schematic of the time of flight mass spectrometer. Clusters are ionized by the excimer laser (Lambda Physik, Optex, 193nm, 6.4 eV) and accelerated by an electric field towards a pair of grounded grids. Later, they are further accelerated towards a third grid and a micro channel plate (MCP, Galileo). The impact of the charged cluster on the MCP creates an avalanche of electrons that are collected in a plate. The signal is amplified (Ortec, 9327) and sent to a multichannel analyzer (Fast Comtec, 7886) where it is recorded.