

Figures

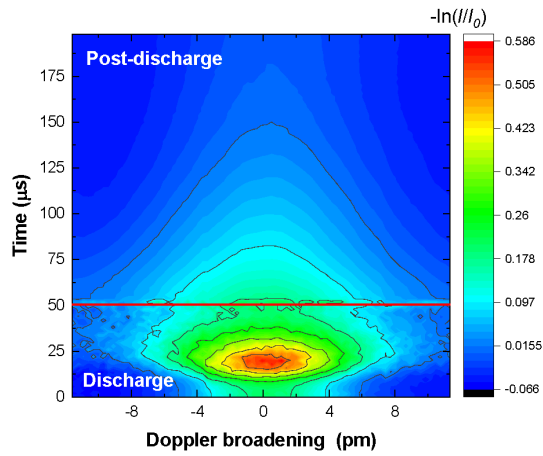


Figure 1 : 2D-image of a typical wavelength-time dependent TR-TDLAS signal measured in the ionization region ($z=1.5$ cm) at 5 Pa discharge pressure.

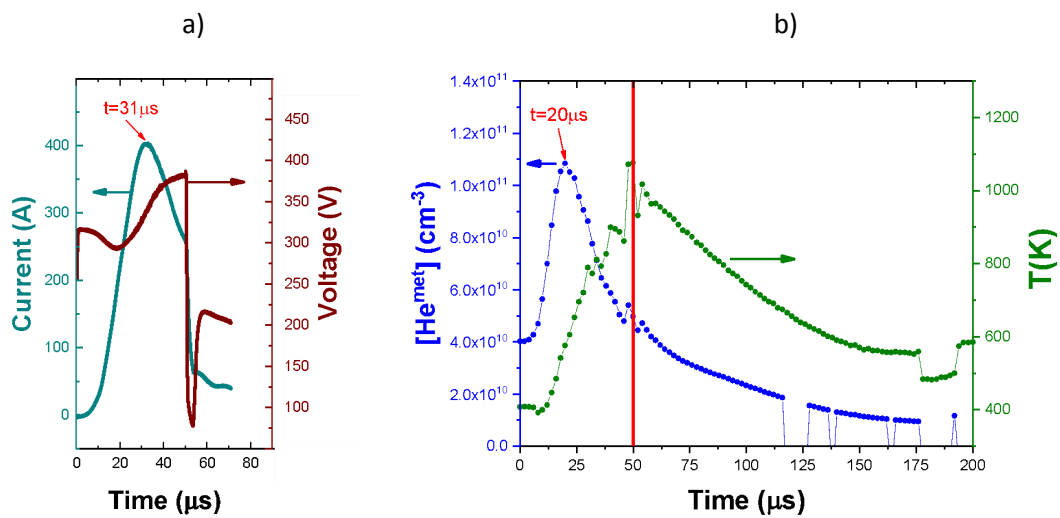


Figure 2 : a) The waveform of the cathode voltage and discharge current. b) The temporal evolution of the gas temperature and He metastable atoms density. Discharge pressure: $p=5$ Pa. The maximum on He metastable atoms density and the discharge current is at $20 \mu\text{s}$ and $31 \mu\text{s}$ respectively.