

ELECTRON – INDIUM ATOM SCATTERING AND ANALYSIS OF ELECTRON AND OPTICAL SPECTRA

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Presented is an overview of experimental study of indium atom using electron and optical spectroscopy. Both experimental techniques including experimental setups [1, 2] are described. Differential and integrated cross sections on elastic and inelastic electron scattering by indium atom were measured using electron spectrometer. The measurements were performed at incident electron energies of $E_0 = 10, 20, 40, 60, 80$ and 100 eV. Optical spectra of In I and In II lines have been acquired by a streak camera [2, 3]. Plasma was generated using Nd:YAG laser. In I and In II emission lines in the time domains ranging from 500 ns to 20 μ s are presented in Fig. 1.

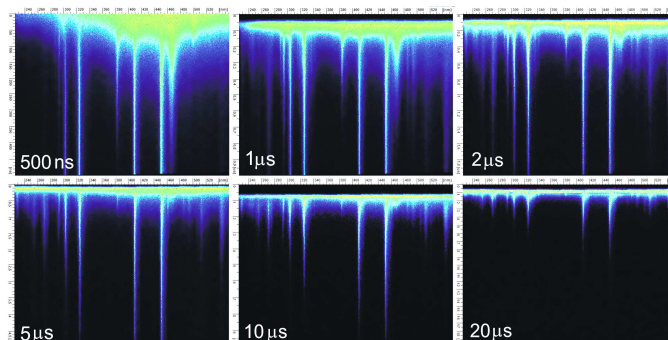


Figure 1. Time resolved LIBS streak images of pure indium sample with time range from 500 ns to 20 μ s..

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REFERENCES

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