



1. Title:	EUV emission spectra of charge-selected Sn ions in charge exchange spectroscopy
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### 3. Abstract body:

Atomic spectroscopic data of multiply charged Xe and Sn ions are necessary for understanding of the EUV light source plasmas. However, the available data are fairly limited at present. In order to determine the transition wavelengths and the energy levels of these ions, we have performed the measurement of the EUV emission spectra of radiation following the electron capture reaction in collisions between the multiply charged ions and the neutral target gas. The ions are produced in 14.25 GHz ECR (Electron Cyclotron Resonance) ion source and are analyzed in respect of the mass-to-charge ratio to obtain the ion beam of the selected charge state. As the target gases, we used some kinds of rare gases to take different excited states of ions. In the cases of Sn ions, we measured the emission spectra in the wavelength range of 5-38 nm in collisions of tin ions of the charge states  $q = 5-15$  with He and Xe gas targets. The UTA around 13.5 nm has been observed in collisions of  $q = 11-15$ . The measured spectra have been compared with the theoretical results to make the identification of the transitions.