Contribution ID: **58** Type: **Študenti fyzika**

Optical study of the interaction between Transient Spark and Electrospray

Wednesday, November 26, 2025 11:02 AM (1 minute)

Transient spark (TS) produces high concentrations of reactive oxygen and nitrogen species (RONS). Solvation of these gaseous molecules in water promotes various environmental applications. The solvation can be enhanced by an electrospray (ES), directly in TS discharge zone. In this work, we focus on the precursors of RONS, investigating the time resolved optical emission spectra of TS w/wo ES. The ES has no significant effect on the lifetime of the studied species, but showed alterations in relative emission intensities. TS with ES increases the iron ion emission intensity, enhancing electrode erosion. Furthermore, the plasma-water interface was examined using ultrafast imaging. The results showed mutually influenced TS and ES generation, and a complex behavior of ES, with a prolonged water accumulation on the electrode.

Pracovisko fakulty (katedra)/ Department of Faculty

Katedra astronómie, fyziky Zeme a meteorológie

Tlač postru/ Print poster

Budem požadovať tlač /I hereby required to print the poster in faculty

Authors: TOTH, Peter (Comenius University Bratislava); SMIRNOV, Sergei

Session Classification: Poster session + káva: prezentácie študentov Fyzika

Track Classification: Poster session + káva: prezentácie študentov: Poster session + káva: prezentácie študentov Fyzika