Contribution ID: **103** Type: **not specified**

JOSÉ QUIÑONES: Control of plasma parameters for the pulsed laser deposition of alloys, compounds and composite thin films.

Friday, 21 February 2020 11:30 (45 minutes)

Pulsed laser deposition of thin films has proven to be a highly versatile technique for the growth of a number of different materials for almost any application. However, for the deposition of alloys, compounds or composite films, there are some drawbacks regarding targets preparation due to the deposited film is composed of two of more elements, making necessary the fabrication of targets with specific compositions depending of the material of interest.
On the other hand, the properties of the growing films are strongly dependent on both laser parameters and target physical properties, which makes the control of the deposition process and thus, the films properties in general, a difficult task. Plasma diagnostics in pulsed laser deposition experiments, has demonstrated to be a powerful tool for controlling experimental reproducibility and more important, to modify the deposited films properties. In this talk the influence of mean kinetic ion energy and density as measured by Langmuir planar probes on the deposition of alloys, compounds and composite thin films, will be discussed.

Session Classification: PLENARY TALKS

Track Classification: SYMPOSIUM ON LASER ABLATION