

Plasma processing for LCLS-II 1.3GHz SRF cavities

Monday, 10 June 2019 11:00 (15 minutes)

This study is focused on the development of an in-situ plasma cleaning procedure for 1.3GHz 9-cell TESLA shaped SRF cavities. The goal of this technique is to reduce field emission through the removal of adsorbed hydrocarbons that lower the work function of the cavity surface.

In this work I present the first results of plasma processing applied to LCLS-II cavities focusing on plasma ignition and studies of quality factor vs accelerating field measured before and after plasma processing.

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Session Classification: Monday Morning II