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Type: **oral**

Dislocation patterns in Cu-OFE by EBSD and Breakdown activity

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In the frame of the CLIC (Compact Lineal Collider) study for the development of a two-beam accelerating technology for a future TeV-scale e+e- linear collider, electrical breakdown (BD) phenomena are deeply studied. BDs are caused by the interaction of the oxygen free electronic copper (Cu-OFE) with vacuum arcs at high gradient operation. BD phenomena lead to isolated or clusters of craters on the surface of the CLIC accelerating structure (AS). The presence of dislocations into the Cu-OFE is suspected to play a role on the BD phenomena. This study focuses on the development of a quantitative and non-destructive diagnostic of the dislocations presence in the Cu-OFE. The final aim is to investigate the relationship between location of BDs features and dislocation presence.

Type of contribution

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session

Applications - materials and devices

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