

Atomistic approach in understanding of mechanisms leading to vacuum arcing

Wednesday, 21 April 2021 07:00 (30 minutes)

In my presentation, I will give the overview of the model, which we develop at the University of Helsinki. I will describe the motivation for the hypothesis, which gave a new angle in studies of material response to high electric field effects. We analyze the behavior of surface atoms under applied electric field to understand the macroscopic changes of properties of material surfaces. To approach the problem of vacuum arcing we divide the process in several stages, for each stage using a specific simulation tool. The results obtained this far for each stage will also be discussed.

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