Study of a Low Voltage Circuit Breaker

LAPLACE, UMR 5213 Université Paul Sabatier, 118 rte de Narbonne, 31062 Toulouse Cedex

Dr Gonzalez Jean-Jacques, AEPPT Team, gonzalez@laplace.univ-tlse.fr

Study level for the internship: M2

Electrical engineering, thermal plasma

Duration of the internship 6 months

Short abstract

This internship is devoted to the study of a low voltage circuit breaker principle. Using fast camera and electrical measurements, a better understanding of the splitting process is expected in the cutting chamber. One magneto hydrodynamic model exists; it should be used in a complex 3D geometry. One confrontation will be made between theoretical and experimental results.

Key words: Plasma, modelling, parametric study, characterization