

# **Determination Of The Damage Factor On Materials Attacked By Plasma Bursts From Plasma Focus Devices**

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With the aim to determinate the damage factor on materials attacked by plasma bursts produced by plasma focus devices, the plasma dynamics after the pinch disruptions in a table top plasma focus was characterized by means of pulsed optical refractive diagnostics. Thus, the energy, interaction time and power flux of the plasma burst produced by a hundred joules plasma focus (PF-400J, 20-30kV, 880nF, 176-396J, 90-140kA, 300 ns quarter period) interacting with targets, was obtained. This information is useful for the application of plasma focus devices in the study of the effects of fusion-relevant pulses on material targets. In particular a damage factor on target of the order of  $10^4$  (W/cm<sup>2</sup>) s<sup>1/2</sup> can be obtained with a plasma focus operating at hundred joules. The scaling of the damage factor for plasma foci operating at different energies is discussed. Supported CONICYT grant ACT-1115.