

BENEMÉRITA UNIVERSIDAD AUTÓNOMA DE PUEBLA



**INSTITUTO DE FÍSICA
"Luis Rivera Terrazas"**



**SEMINARIO EXTRAORDINARIO
"DR. JESUS REYES CORONA"**

"Leidenfrost Explosions"

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We show that Leidenfrost droplets made of an aqueous solution of surfactant undergo a violent explosion in a wide range of conditions. This unexpected behavior turns out to occur when the mean surfactant concentration exceeds a critical value widely independent of initial volume and concentration, but decreasing with plate temperature. Explosion is reproducibly observed after the formation of a shell, followed by a sharp temperature increase. A simple model explains these tendencies, and allows conjecturing that the explosion sequence starts when the droplet surface concentration exceeds some threshold.

**Auditorio-IFUAP
Jueves 26 de Febrero de 2015
13:00 Hrs.**