

RESEARCH PROJECT 2023-2024

Department/Area

Mechanical, Materials

[Borrar lo que no proceda]

Title/Name

Comparative Analysis of Cold Plasma and Alternative Plasma Treatments: Effects on Polymer Surface Modification

Abstract/Description

Cold plasma plays a vital role in materials science for surface modification of materials, including cleaning, coating, and etching. Cold plasma technology is being explored in biotechnology for applications such as sterilization, biofilm removal, and modification of biomaterials. The primary objective of this project is to conduct a comparison between cold plasma and other plasma types, specifically focusing on their respective effects on polymer surfaces. Several characterization techniques will be used to study its effect. SEM, FTIR, Surface energy, adhesion est, etc.

Prerequisites

Required	Materials Science;
Recommended	CAD

Supervisor(s)/Tutor(s)

Structure

Format	Summer (intensive, preferably 8 weeks),
Workload	100 hours (4 ECTS) / 200 hours (8 ECTS)
Students	2