



Contribution ID: 55

Type: **Poster**

## Impact of Annealing p-Terphenyl Films Deposited on Dichroic Filters: Emission, Absorption, and Adhesion Analysis.

*Tuesday, 21 October 2025 22:00 (50 minutes)*

Annealing is widely recognized as a key post-deposition thermal treatment for enhancing the performance of thin films by improving their microstructure, morphology, and electrical and optical properties. In this study, we investigate the physical behavior of p-terphenyl thin films deposited on dichroic filters and subjected to annealing processes carried out at fixed durations and varying temperatures. The optical properties of the films—namely, relative efficiency, absorption, and emission—are systematically analyzed before and after annealing. Furthermore, cryogenic immersion tests are conducted to evaluate the adhesion of the films to the substrate as a function of annealing temperature. Surface morphology is examined via optical microscopy to assess possible structural changes induced by thermal and cryogenic treatments. The results provide insights into the thermal stability and adhesion performance of p-terphenyl films under varying annealing conditions, contributing to the optimization of their application in optical devices.

**Primary author:** MENDONÇA, Ana Paula (UNICAMP)

**Co-authors:** PAGLIUSO, Lucca (UNICAMP); Dr MERLO, Rafael (UNICAMP); Dr MACHADO, Ana Amélia (UNICAMP); Dr MARQUES, Francisco (UNICAMP); Dr SEGRETO, Ettore (UNICAMP)

**Presenter:** MENDONÇA, Ana Paula (UNICAMP)

**Session Classification:** Poster

**Track Classification:** Detector techniques (HV, purification, cryogenics, calibration etc.)