

# Black Coatings BSDF Database



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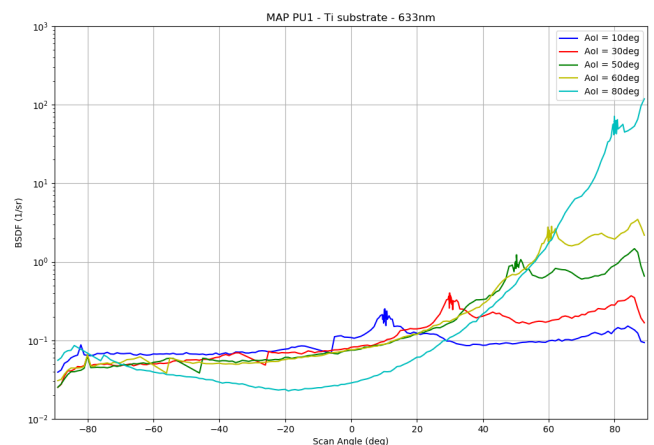
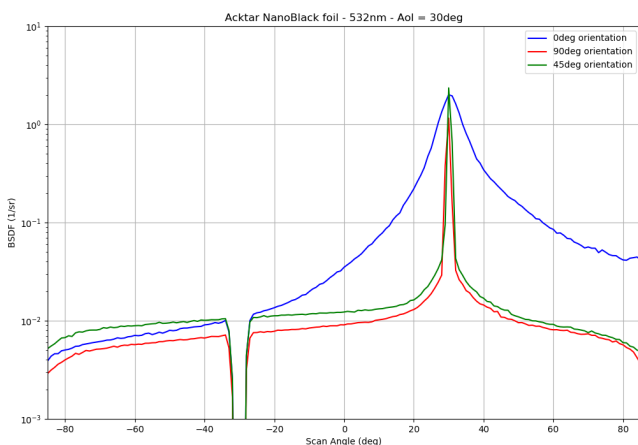
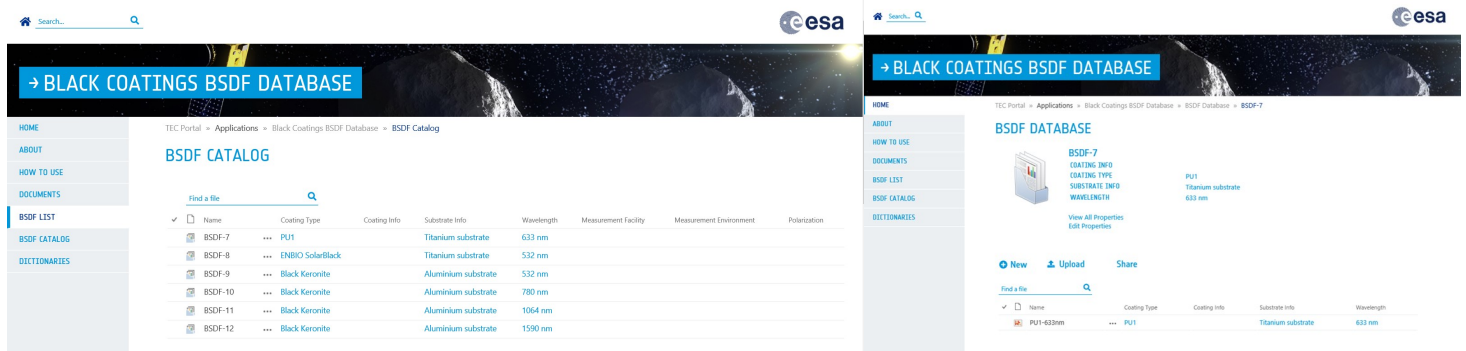
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## Objective

- Provide access to BSDF data of black coatings to the space community to support their efforts for more accurate straylight predictions of space instruments and OGSE's.

## Background

- Only hemispherical reflectance value is often provided by black coatings manufacturers
- Bi-directional Scatter Distribution Function (BSDF) more useful property for straylight predictions as it describes the directional dependence of the reflected or transmitted optical energy.
- Lambertian behavior often assumed for black coatings, yet:
  - At larger incidence angles many black coatings show non-Lambertian behavior
  - Some black coatings show anisotropic behavior



## Cooperation and access

Cooperation is encouraged and can be done by:

- Providing samples for measurement
- Providing BSDF measurement data of black coatings

For cooperation, suggestions or database access please contact the Optics and Opto-Electronics Laboratory (OOEL) at ESTEC:

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