Improved broadband and narrowband far UV coatings
Juan Larruquert, GOLD-Instituto de Óptica, CSIC, Madrid

- FUV&EUV coatings for space applications
- Evaporation & Ion-beam-sputtering

Coatings based on MLs with two fluorides

Peak can be selected at any \( \lambda \geq 120 \text{ nm} \)
Narrowband FUV coatings

First narrowband coatings peaked close to:
- H Lyβ, 102.6 nm
- O VI, 103.2, 103.8 nm
- Strong rejection@ 121.6 nm

In-house reflectometer covering 40-200 nm
Improved Al mirrors

Al coated with:
- hot deposited MgF$_2$
- or hot deposited AlF$_3$

Large FUV Refl
Best at ~120 nm

Engineered Al/MgF$_2$ coating

Coating deposited at RT

Reflectance dip is minimized

Co-authors: N. Gutiérrez, C. Honrado, P. López, A. Ríos, L. Rodríguez

Funded by Spanish government, Grant PID2019-105156GB-I00