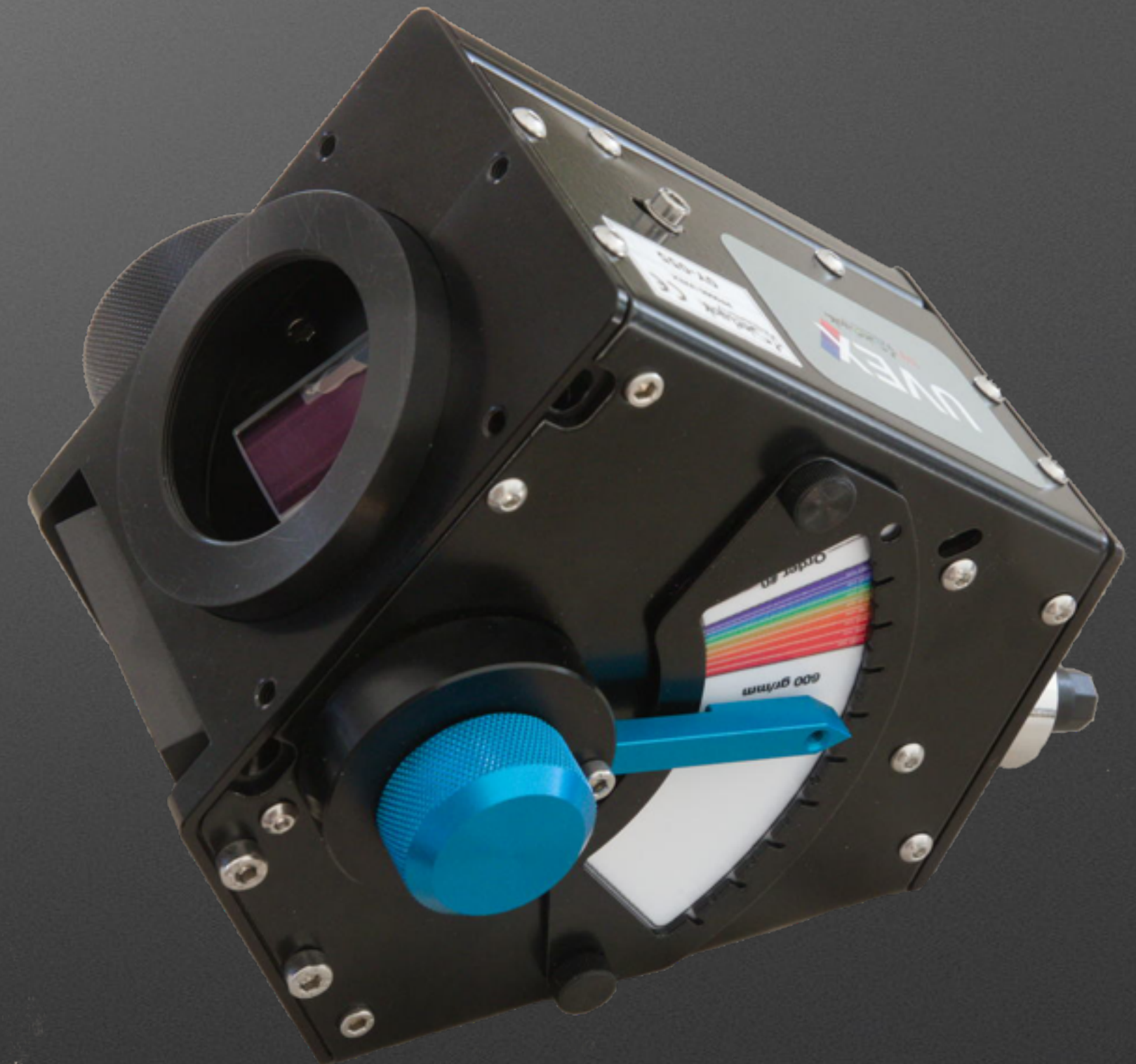
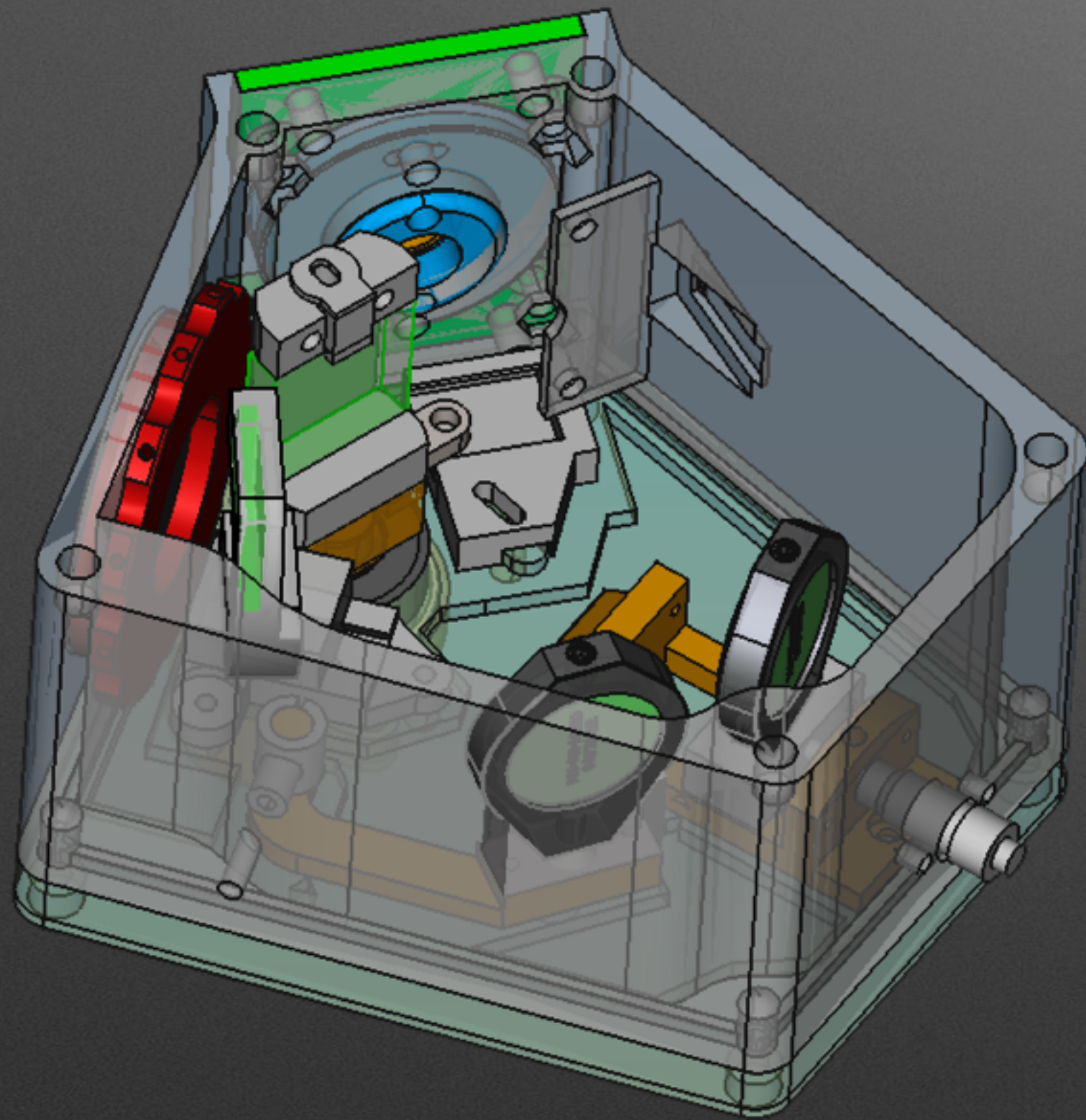


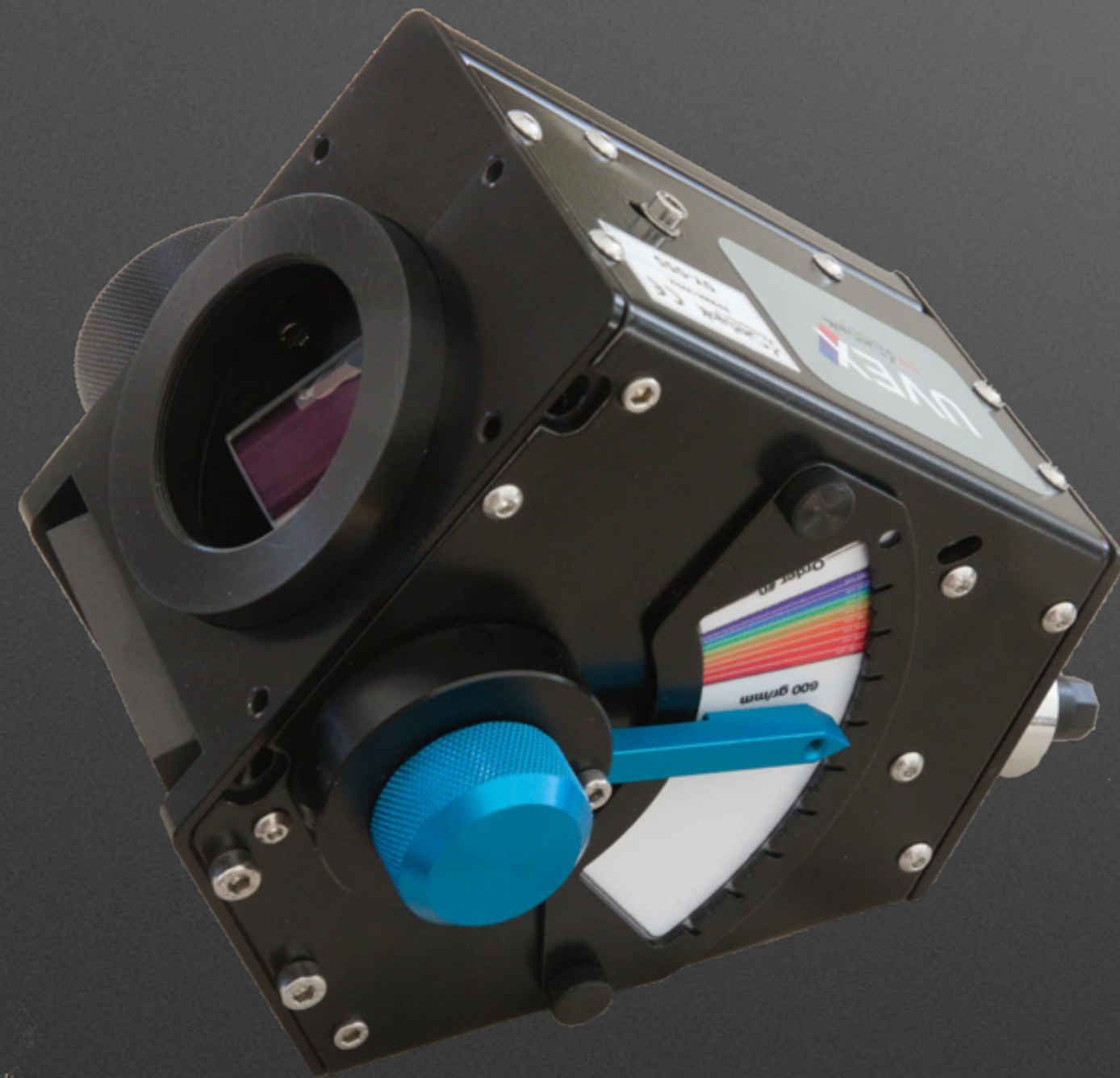
UVEX

a new generation of spectrograph

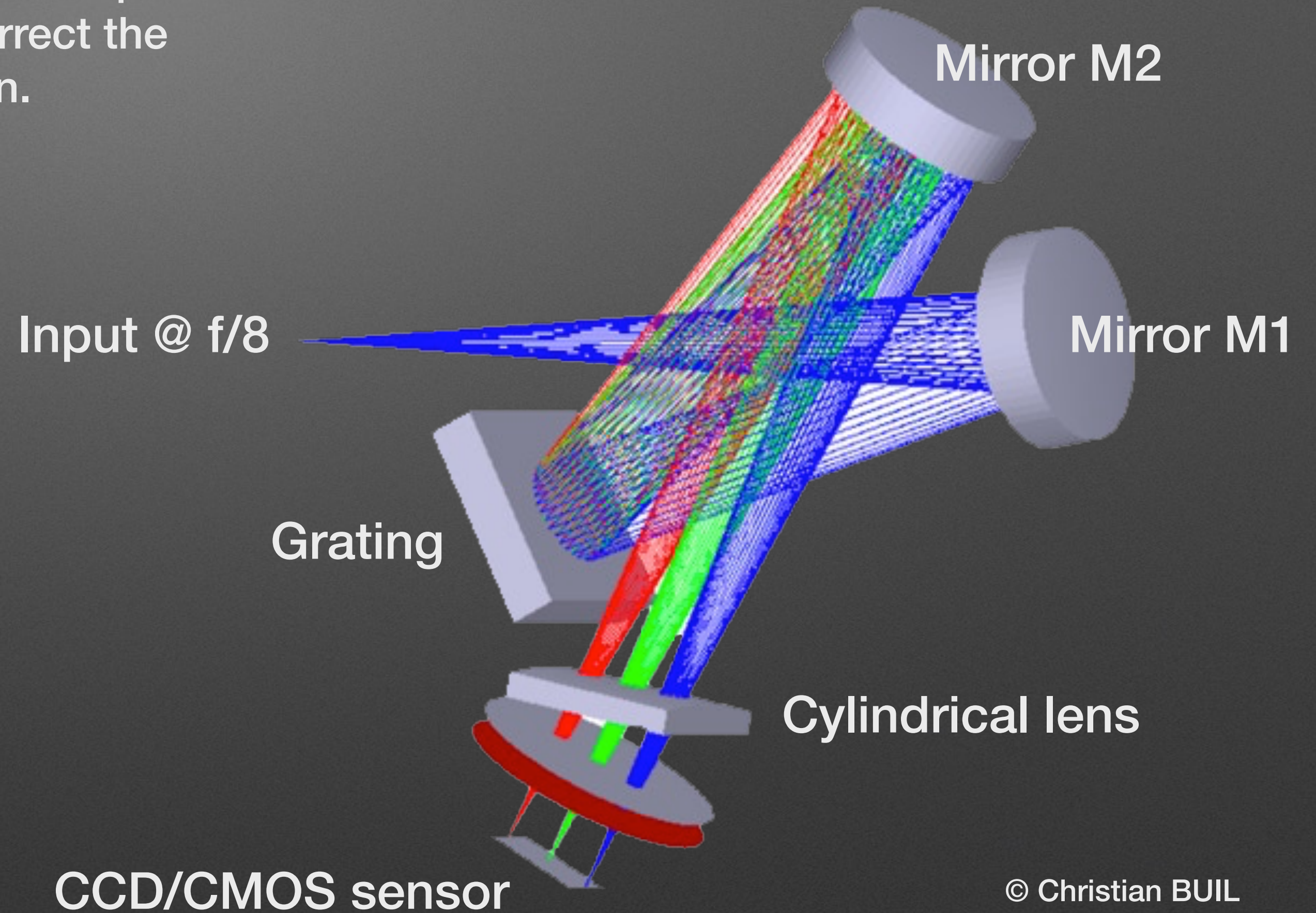


UVEX optical diagram

- UVEX optical design was made by Christian Buil
- Based on a so-called «cross» Czerny-Turner spectroscope
- A cylindrical lens is added near the detector to correct the astigmatism of the initial Czerny-Turner combination.

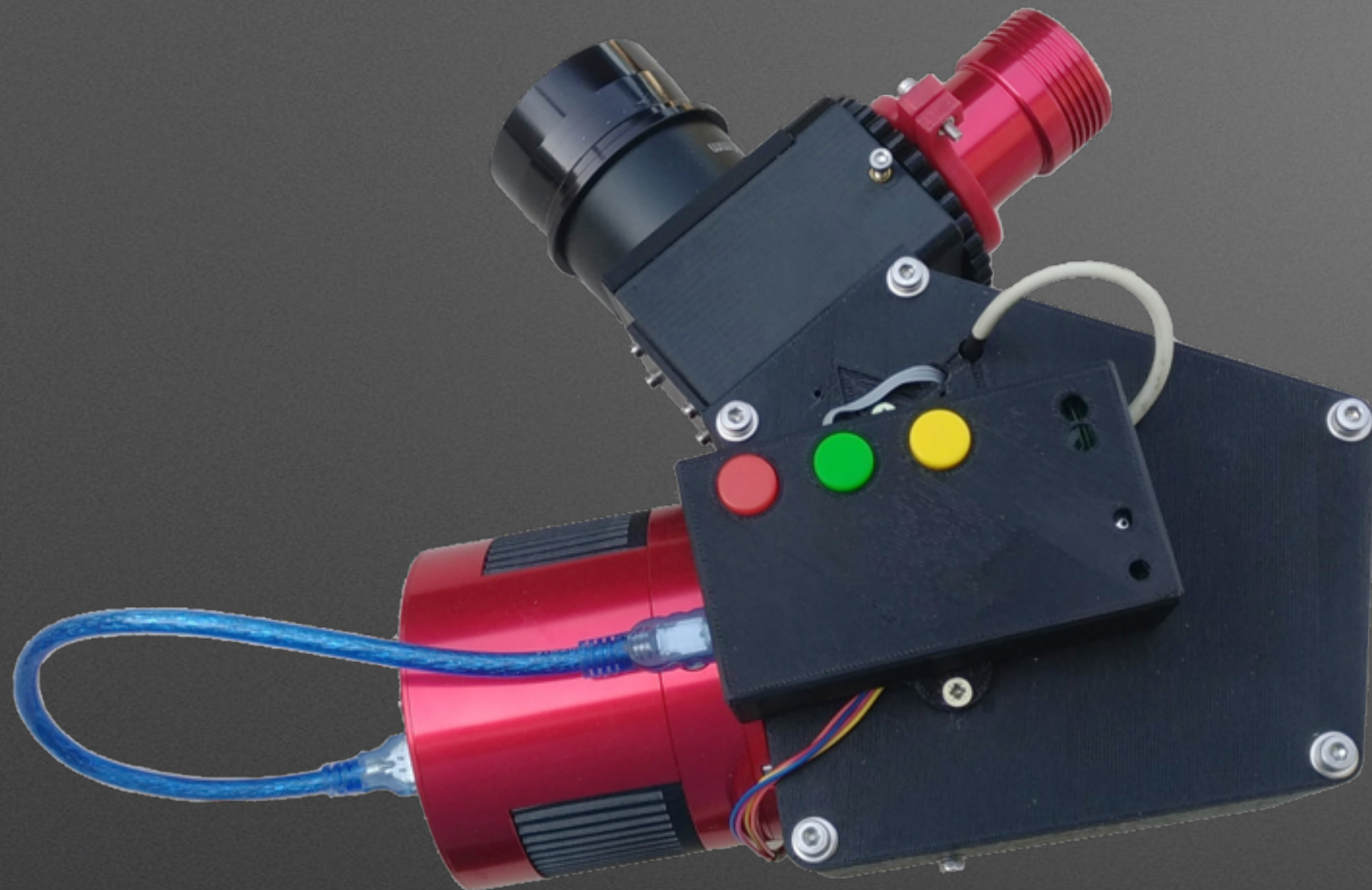


© Shelyak Instruments



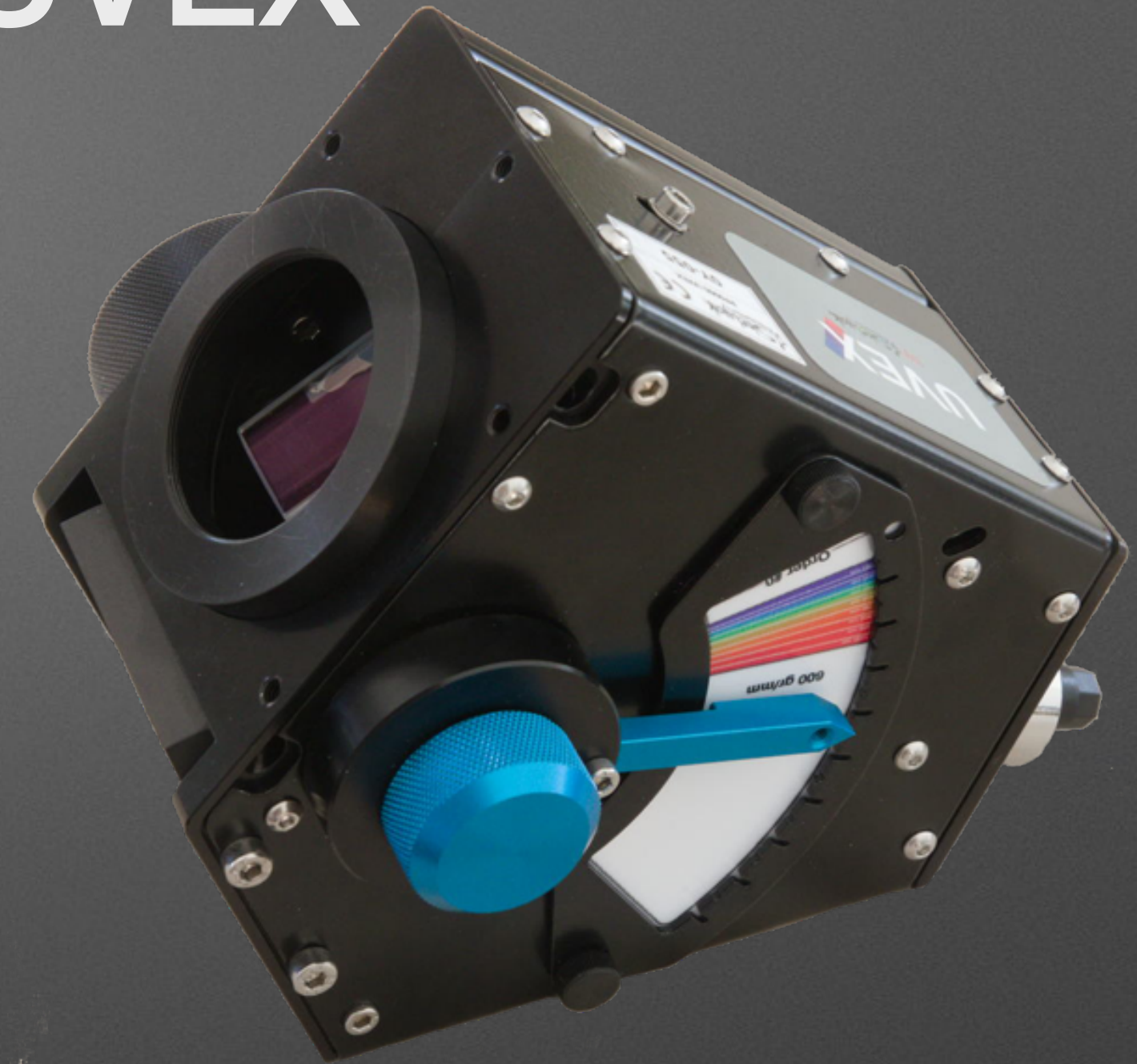
© Christian BUIL

2 versions of the UVEX



© Pierre Dubreuil

A DIY version
in 3D printing



© Shelyak Instrument

Industrial version
by Shelyak Instruments



UVEX features

- Multi-purpose spectroscope with wide wavelength range (from near UV to near IR : **350 nm to 1 μ m**)
- Compact and rigid : 145 x 140 mm H=120mm
- Weight : 1,2 Kg for the industrial version
740g for the DIY version
- Large choice of spectral resolutions (**R=400 to R=7000**)
- Internal focusing adjustment using an external multi-turn button.
- Optimized for Ritchey-Chretien telescopes diameter up to 350mm at f/8.
- Vernier for adjusting the wavelength range for each grating. (simply slips under the adjustment needle).
- Grating and focus motorization possible for remote control use.

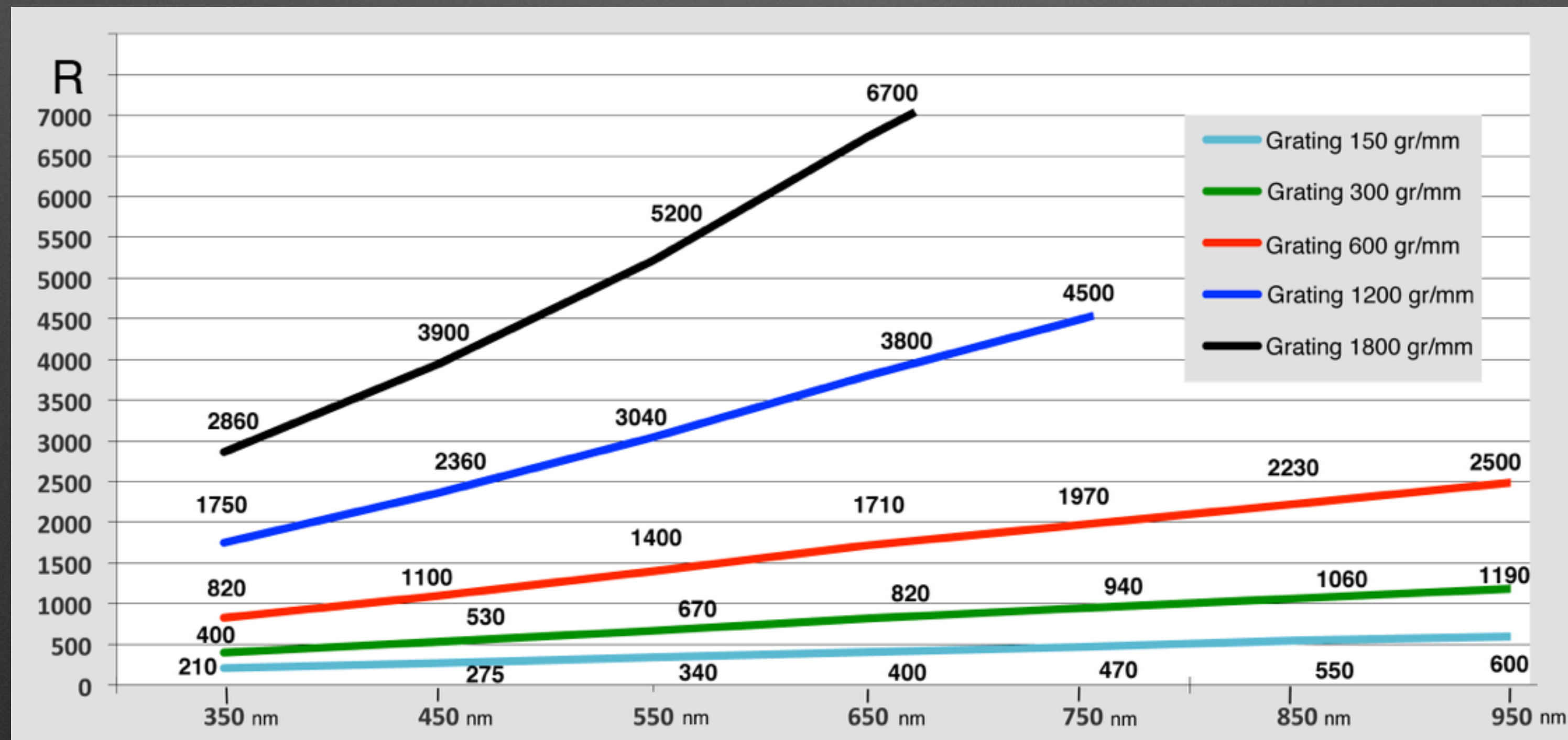
UVEX gratings

5 different gratings :

- 150 gr/mm
- 300 gr/mm
- 600 gr/mm
- 1200 gr/mm
- 1800 gr/mm



© Olivier Garde

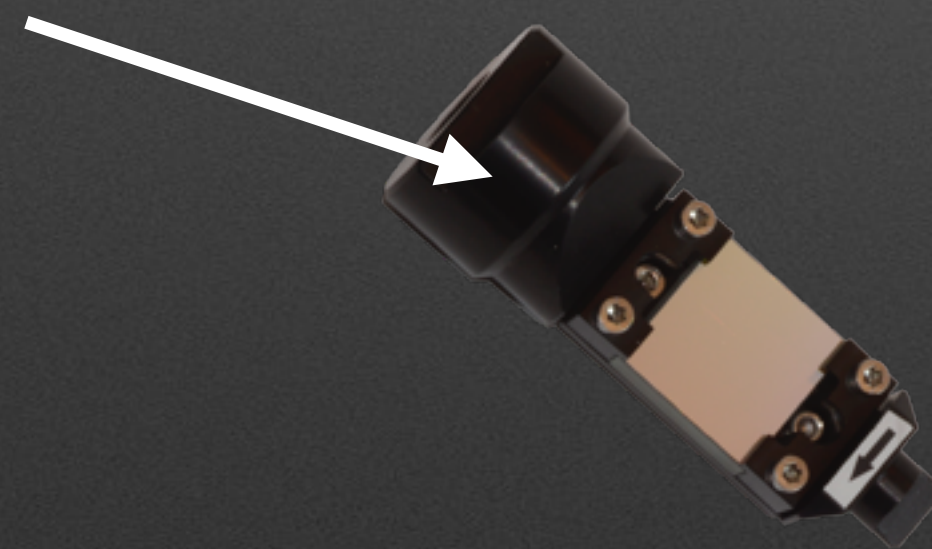


Changing the grating



© Olivier Garde

Grating & support

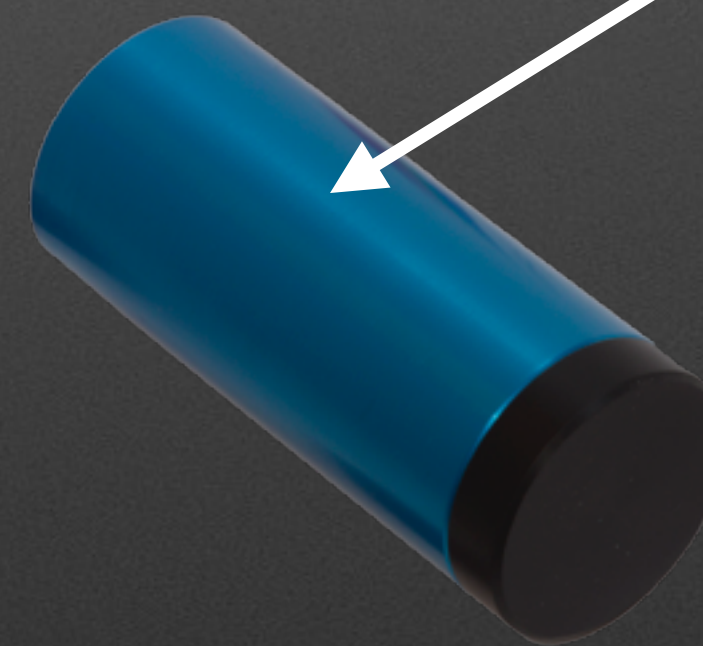


© Olivier Garde



Vernier

Container



Plug



Focusing the UVEX



© Olivier Garde

Multi-turn button



© Shelyak Instruments

Mirror translation

DIY

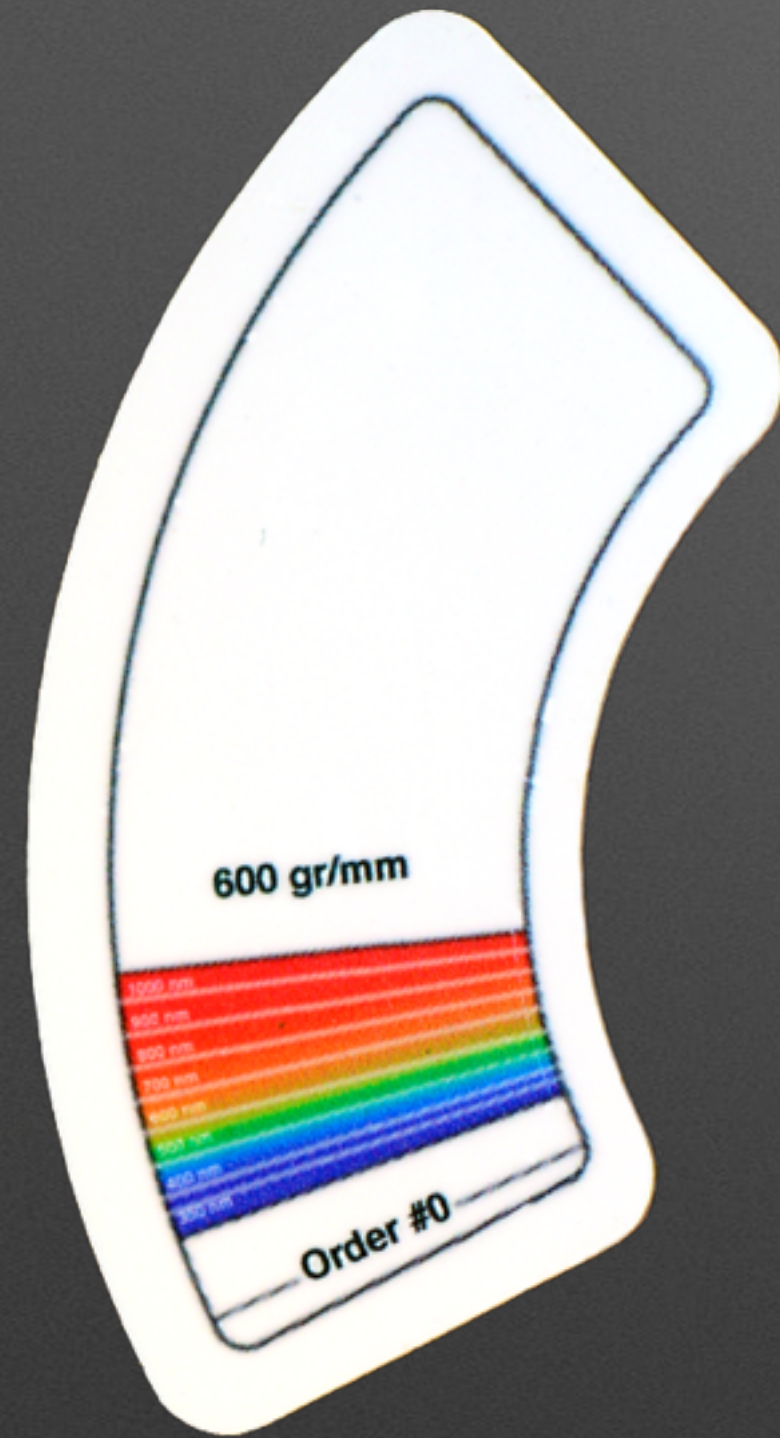


© Pierre Dubreuil

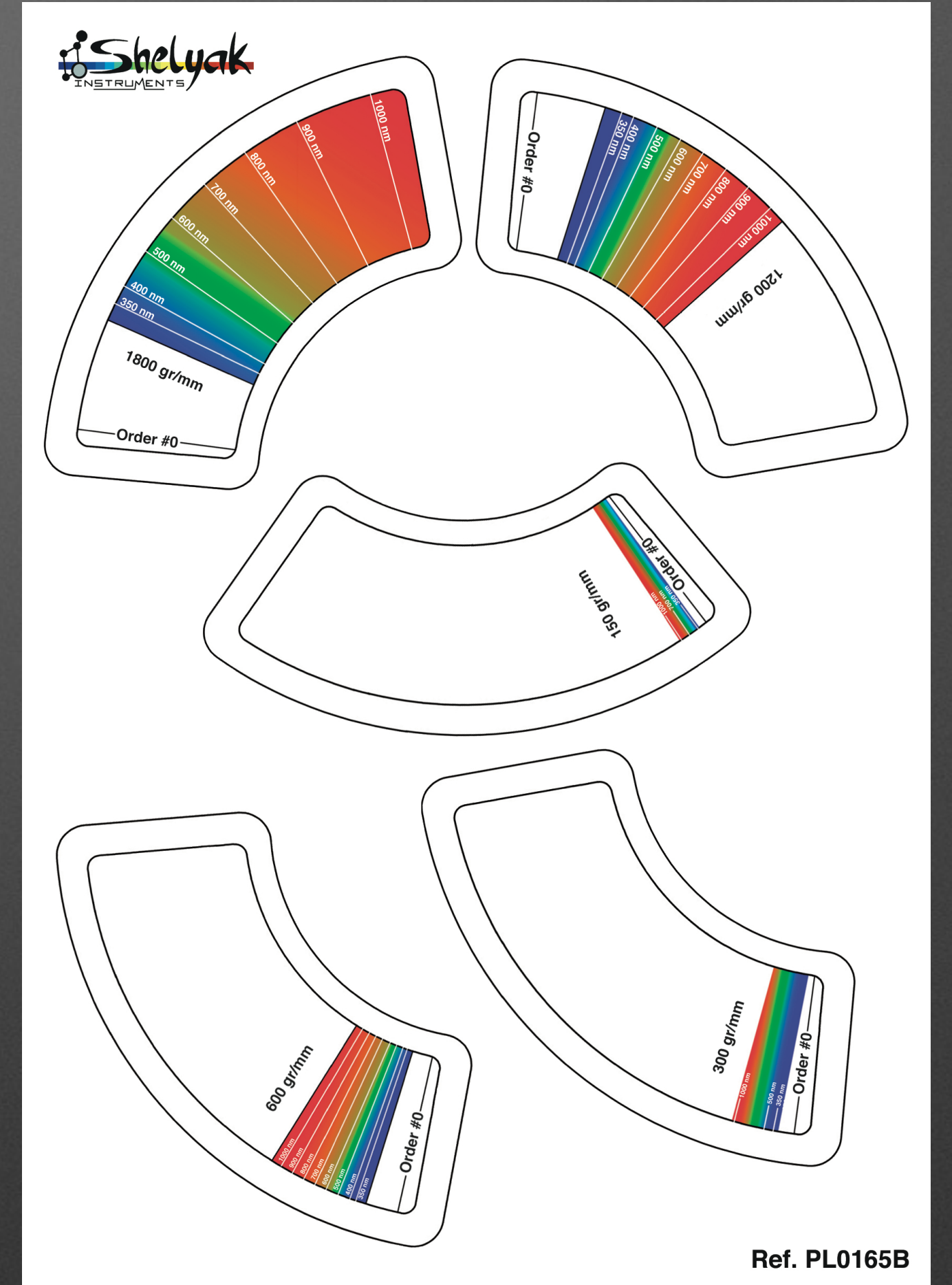
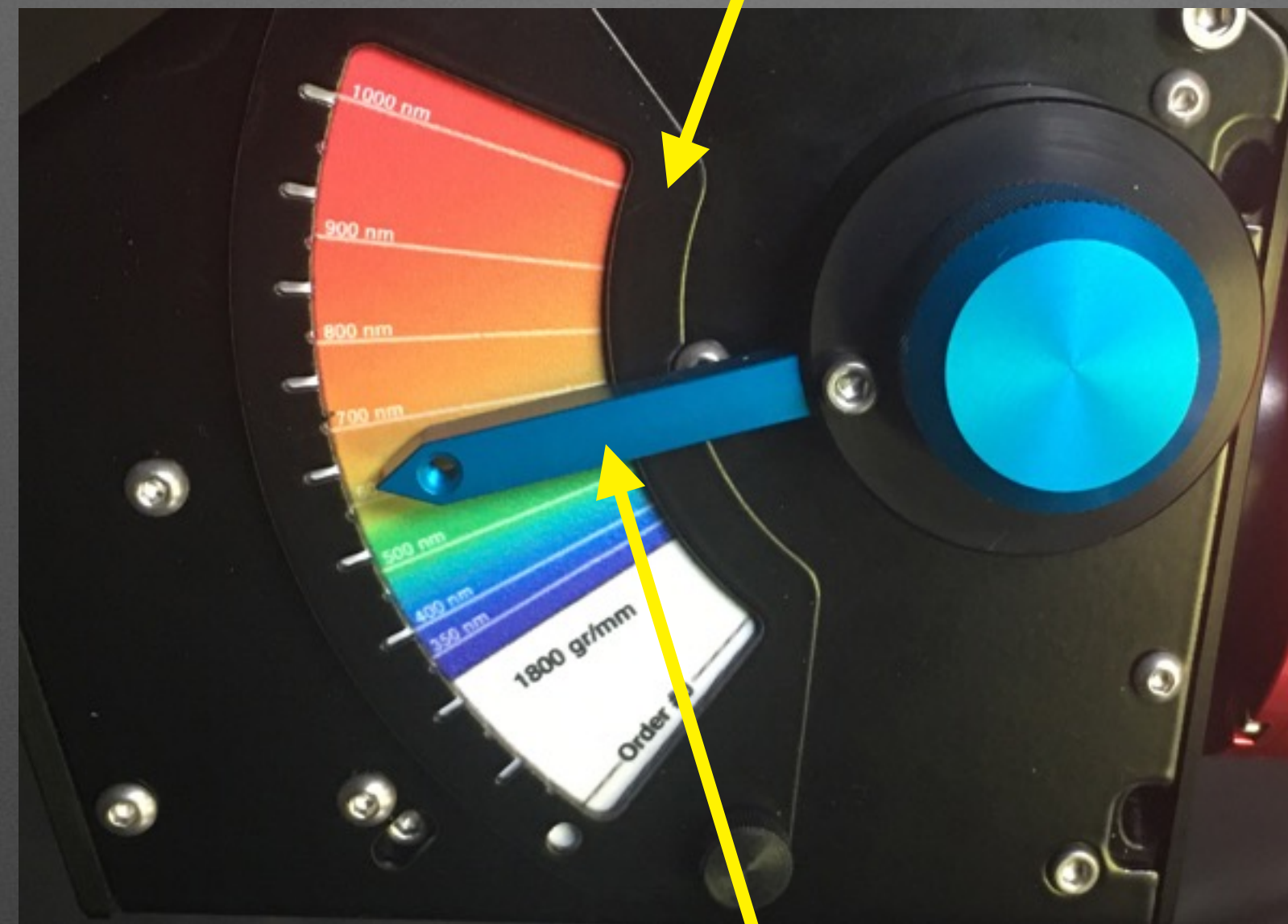


© Pierre Dubreuil

How to adjust the wavelength range ?

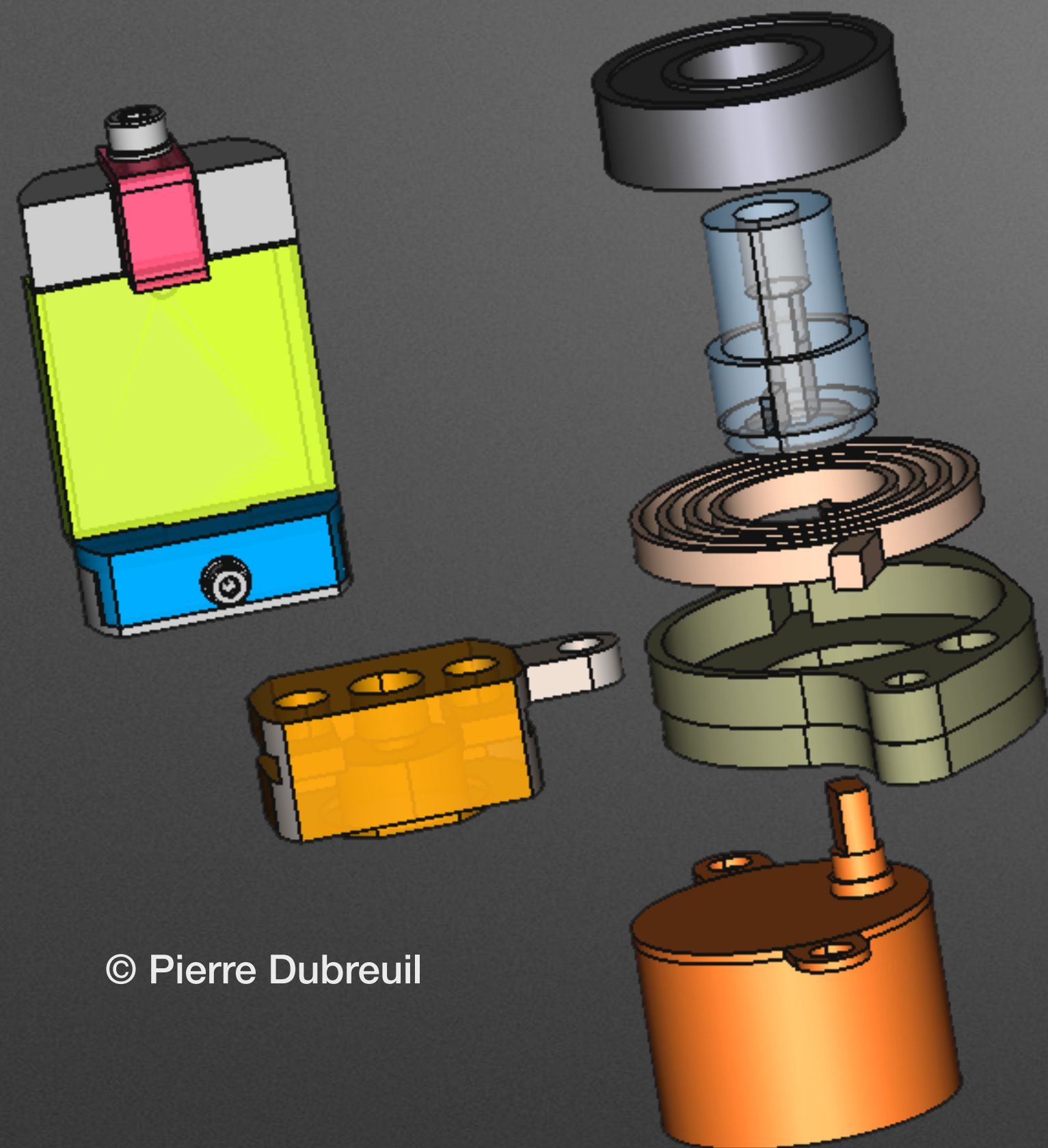


© Olivier Garde



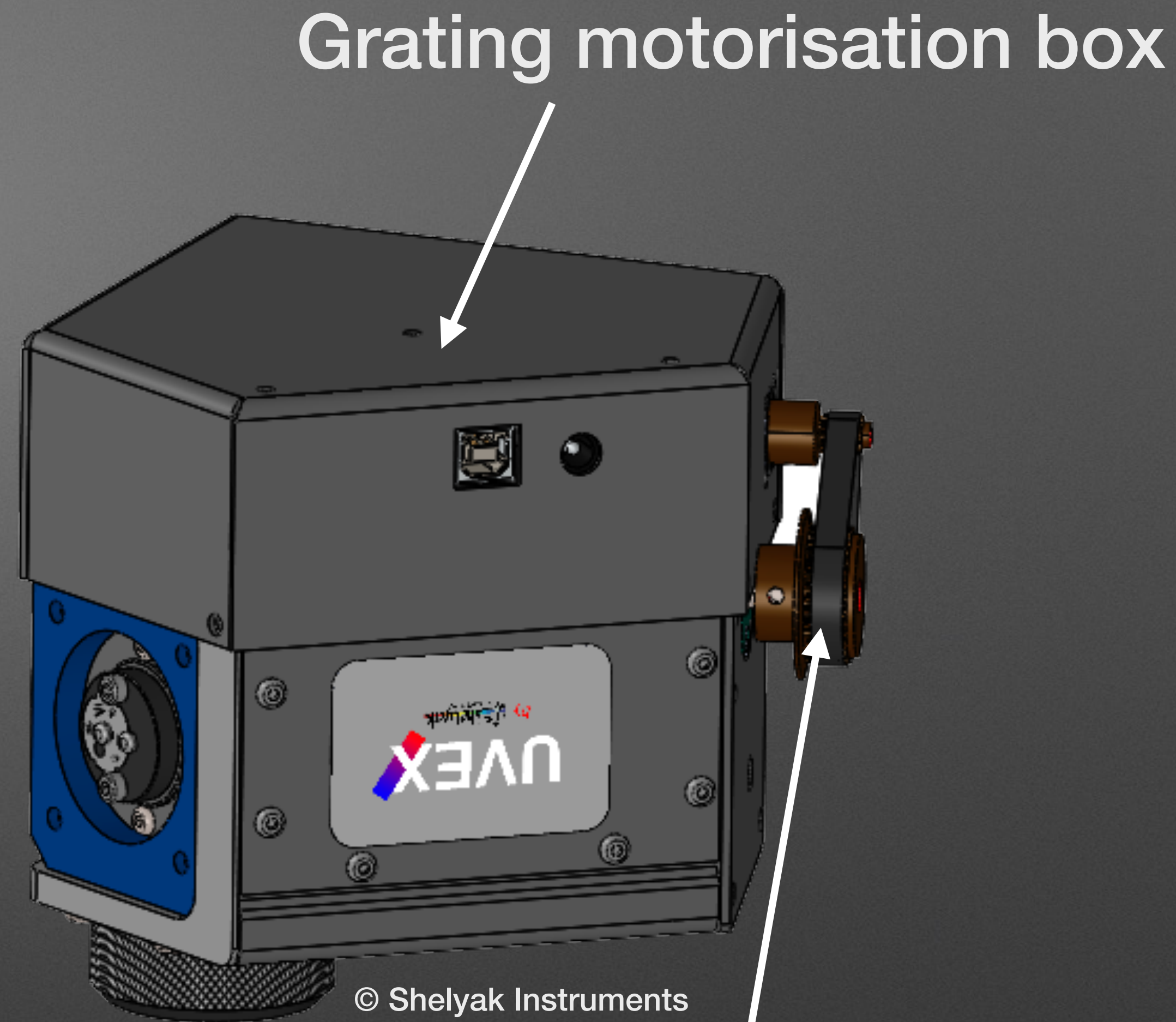
Each grating has its own vernier

UVEX Motorisation : for remote control



© Pierre Dubreuil

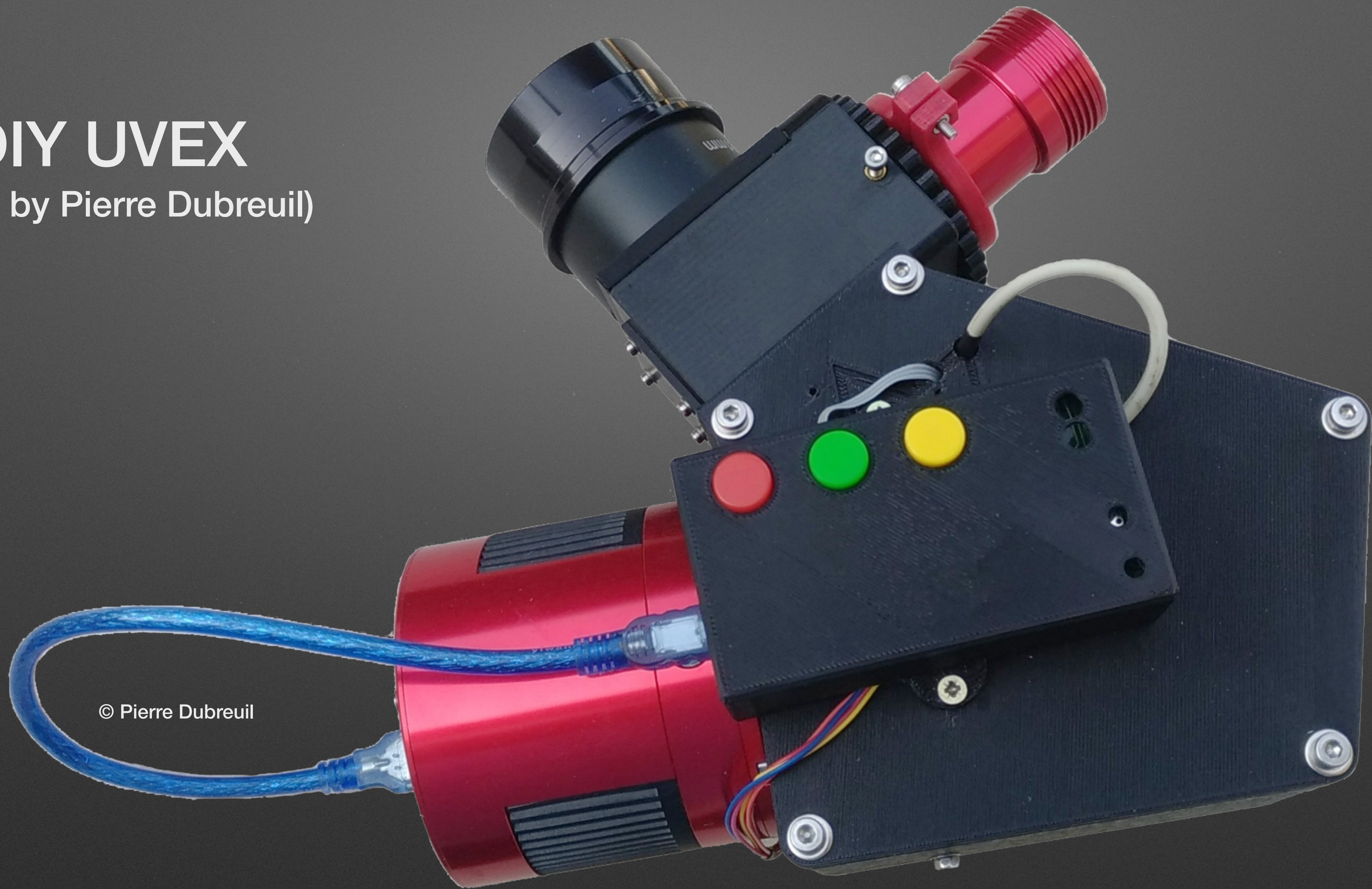
Grating motorisation DIY version



Mirror focus motorisation

DIY UVEX

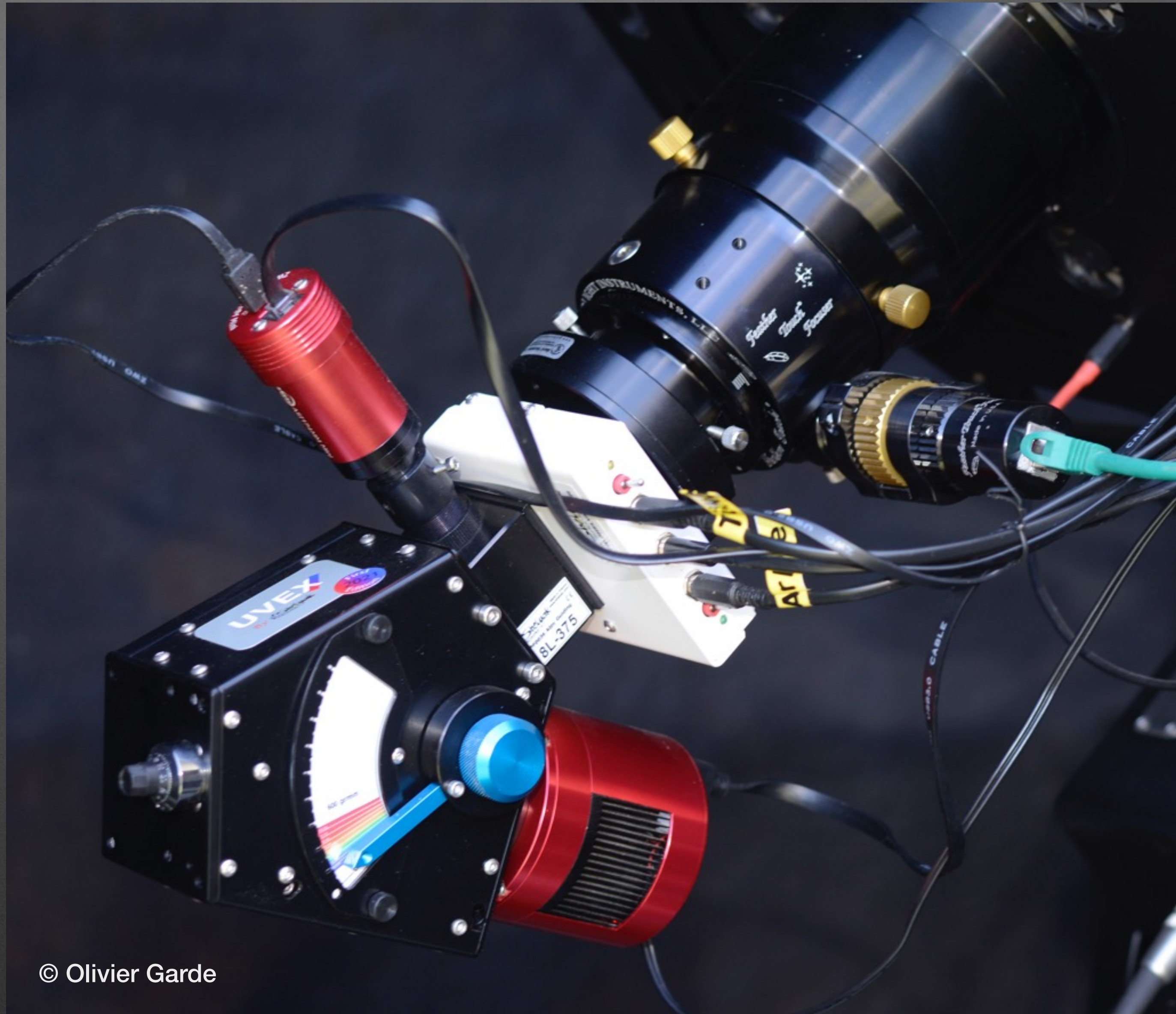
(made by Pierre Dubreuil)



© Pierre Dubreuil

Industrial UVEX

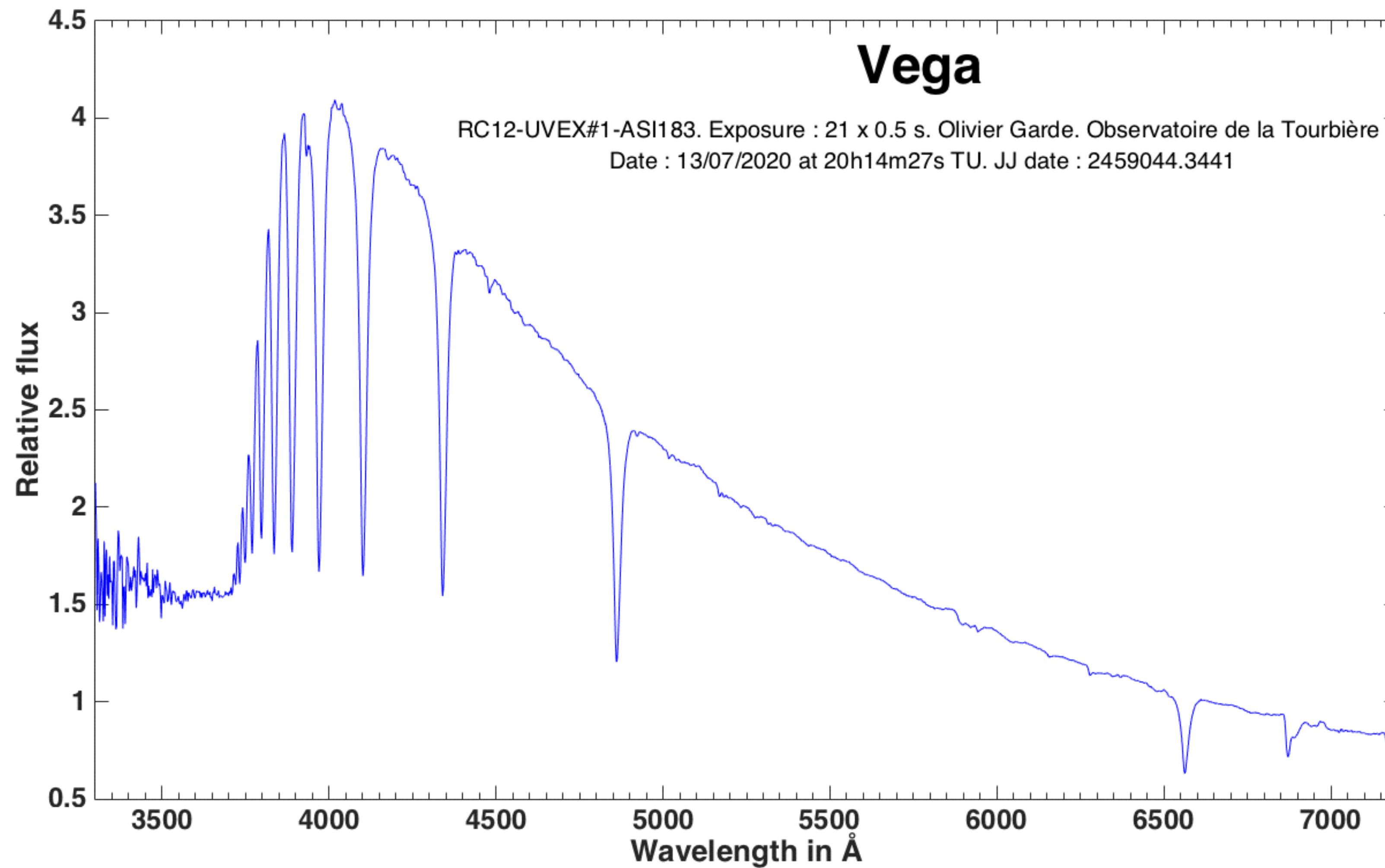
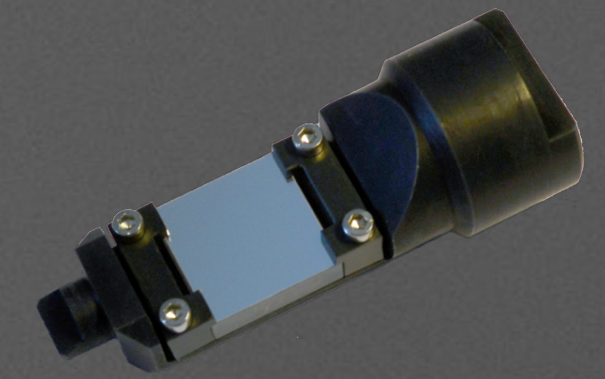
(made by Shelyak Instruments)



© Olivier Garde

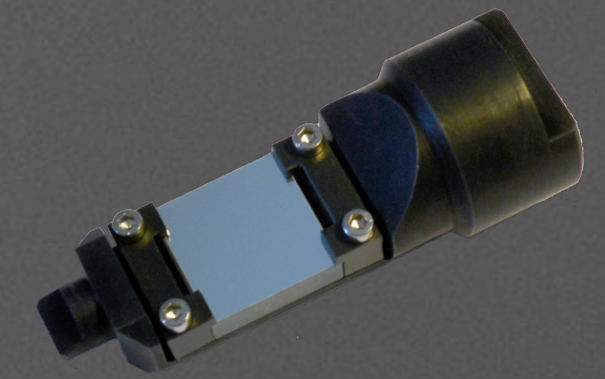
Some results

300 gr/mm



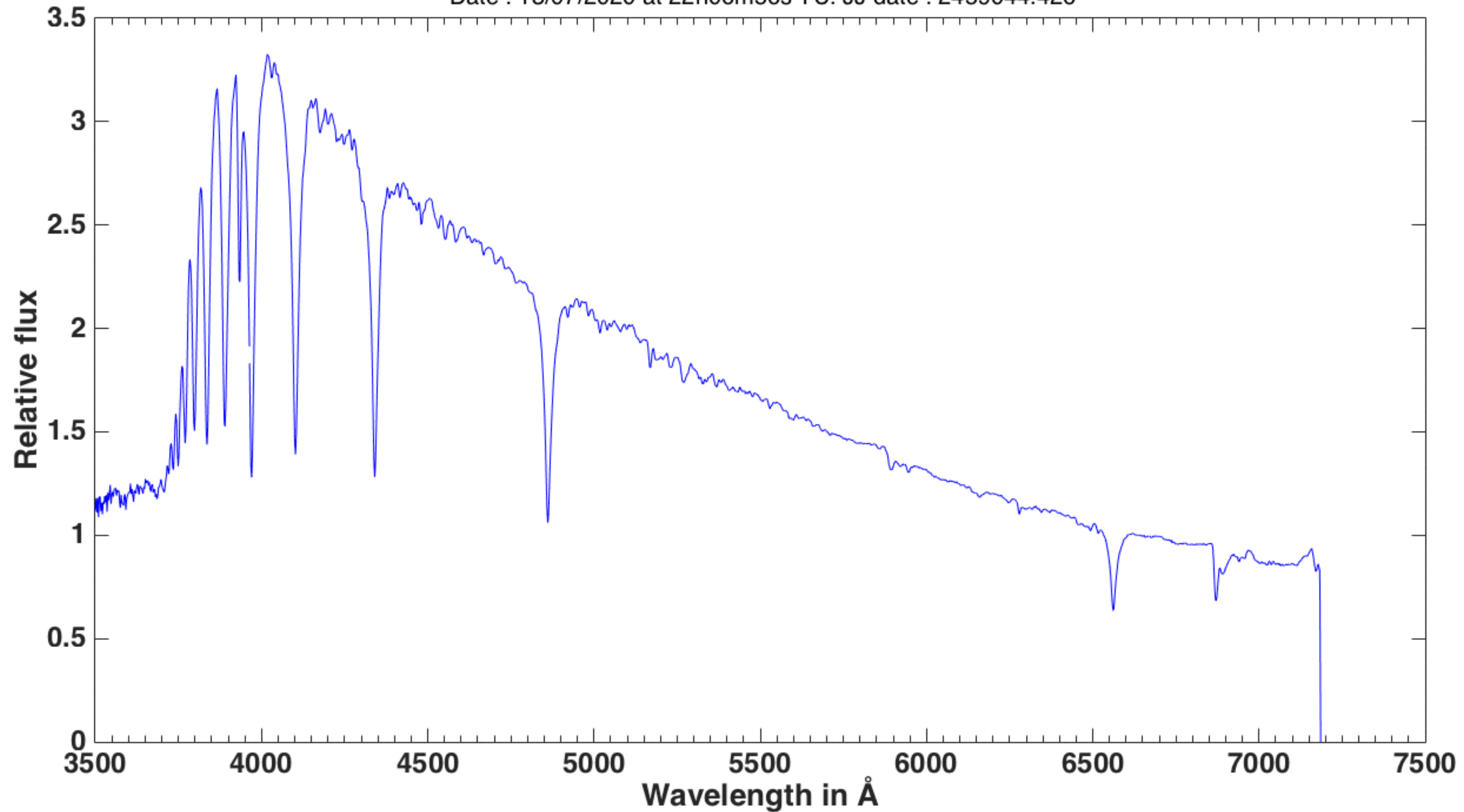
Some results

300 gr/mm



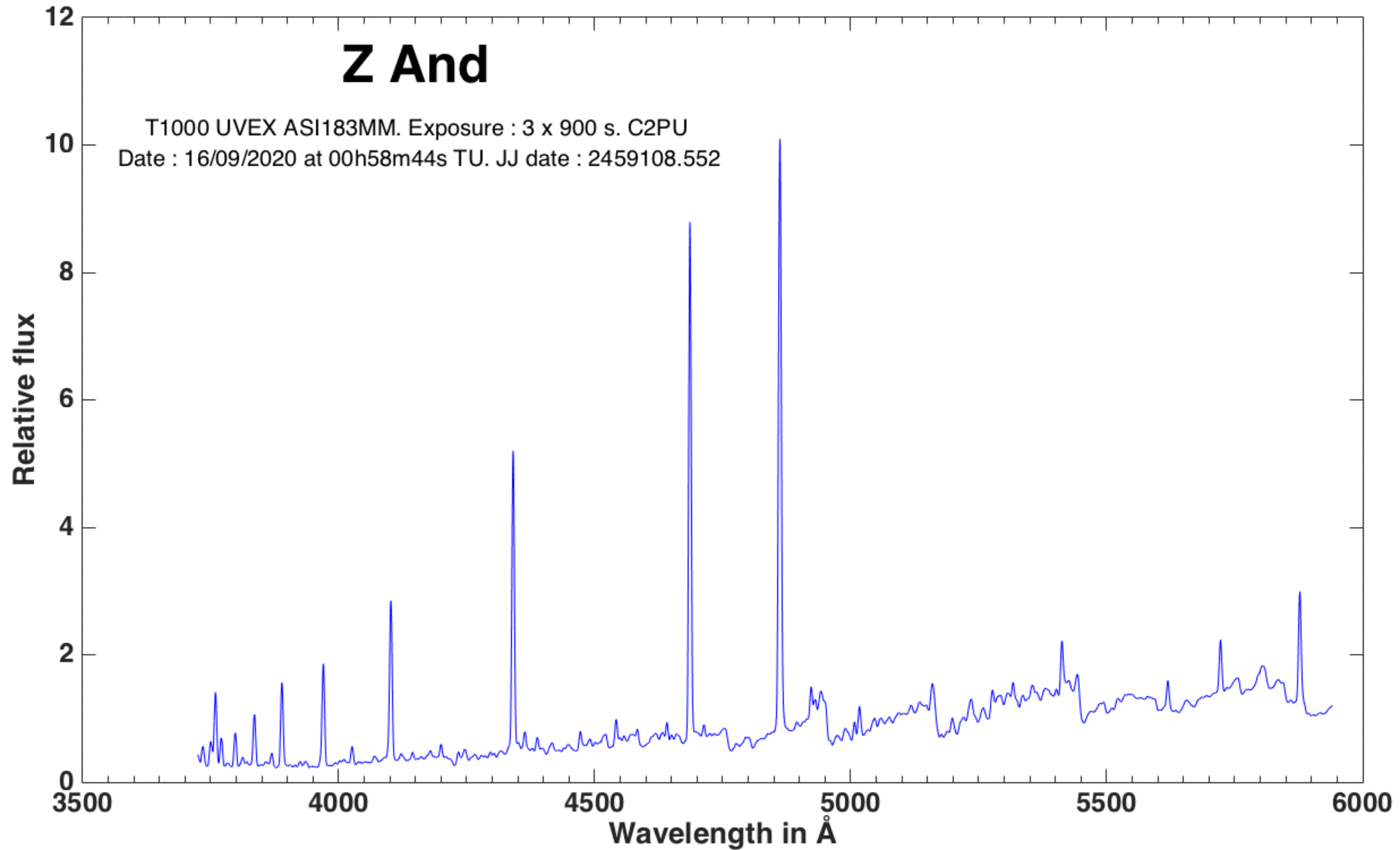
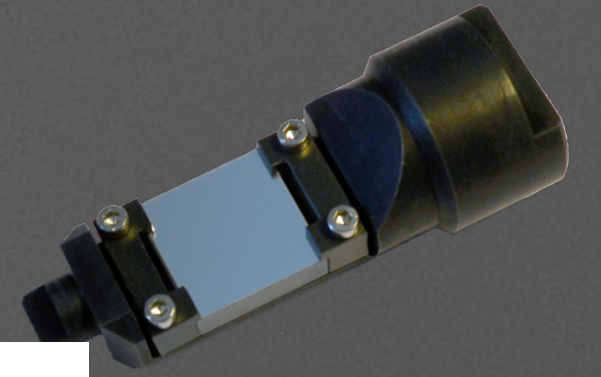
HD175638

RC12-UVEX#1-ASI183. Exposure : 11 x 60 s. Olivier Garde. Observatoire de la Tourbière
Date : 13/07/2020 at 22h06m56s TU. JJ date : 2459044.426



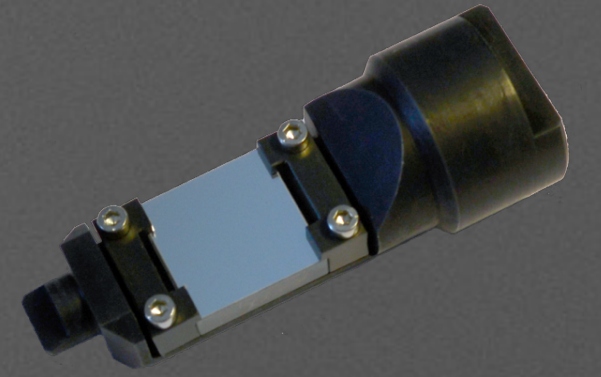
Some results

600 gr/mm

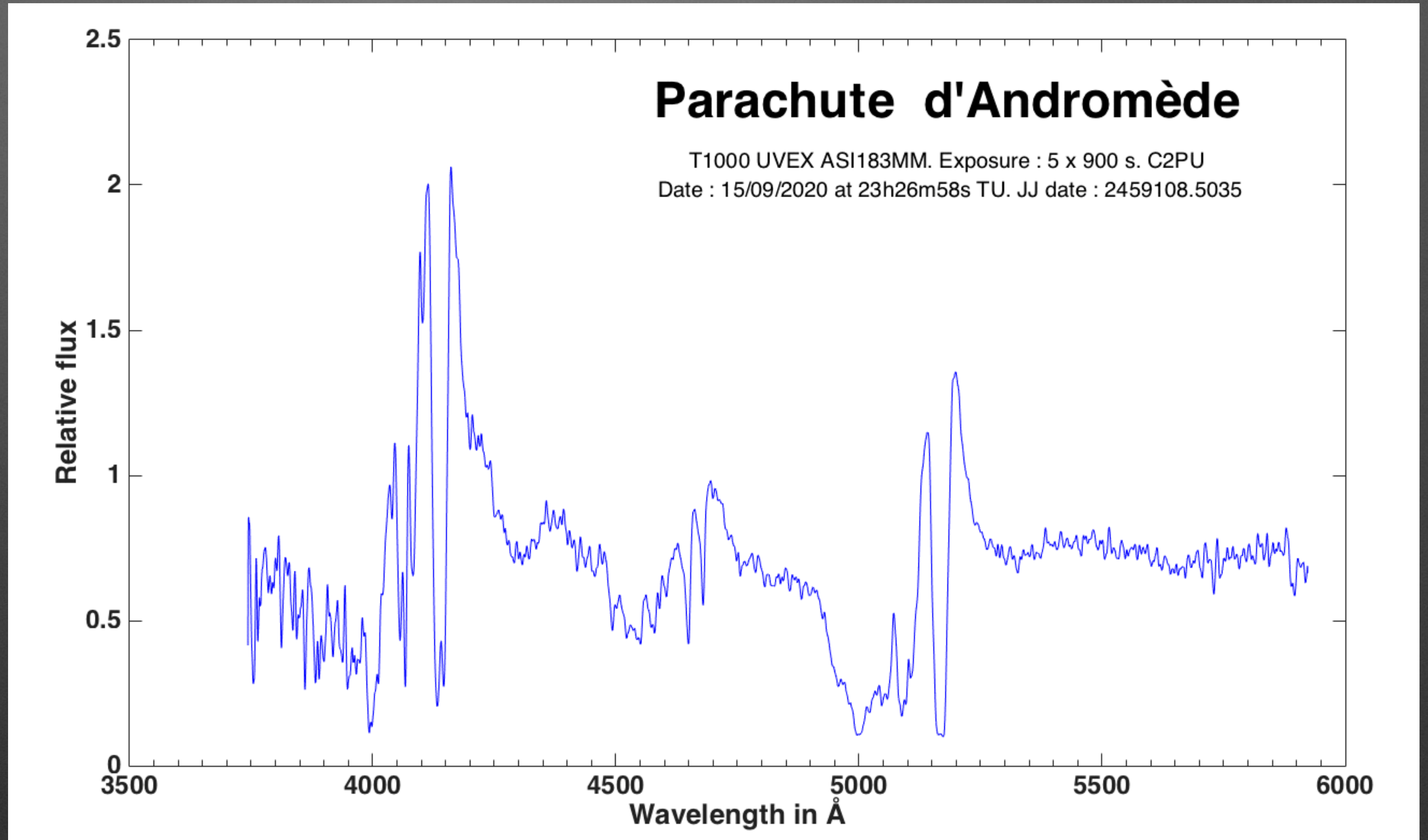


Some results

600 gr/mm

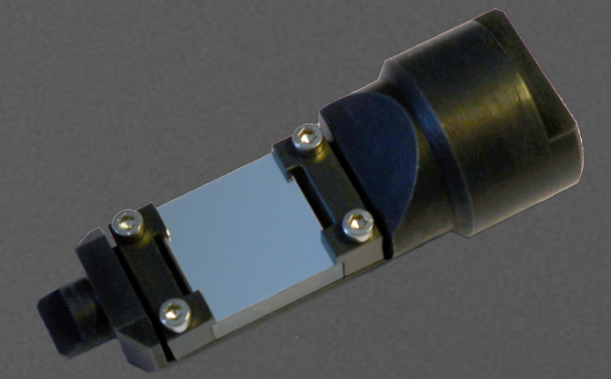


Magnitude 15,5
Z=2,377

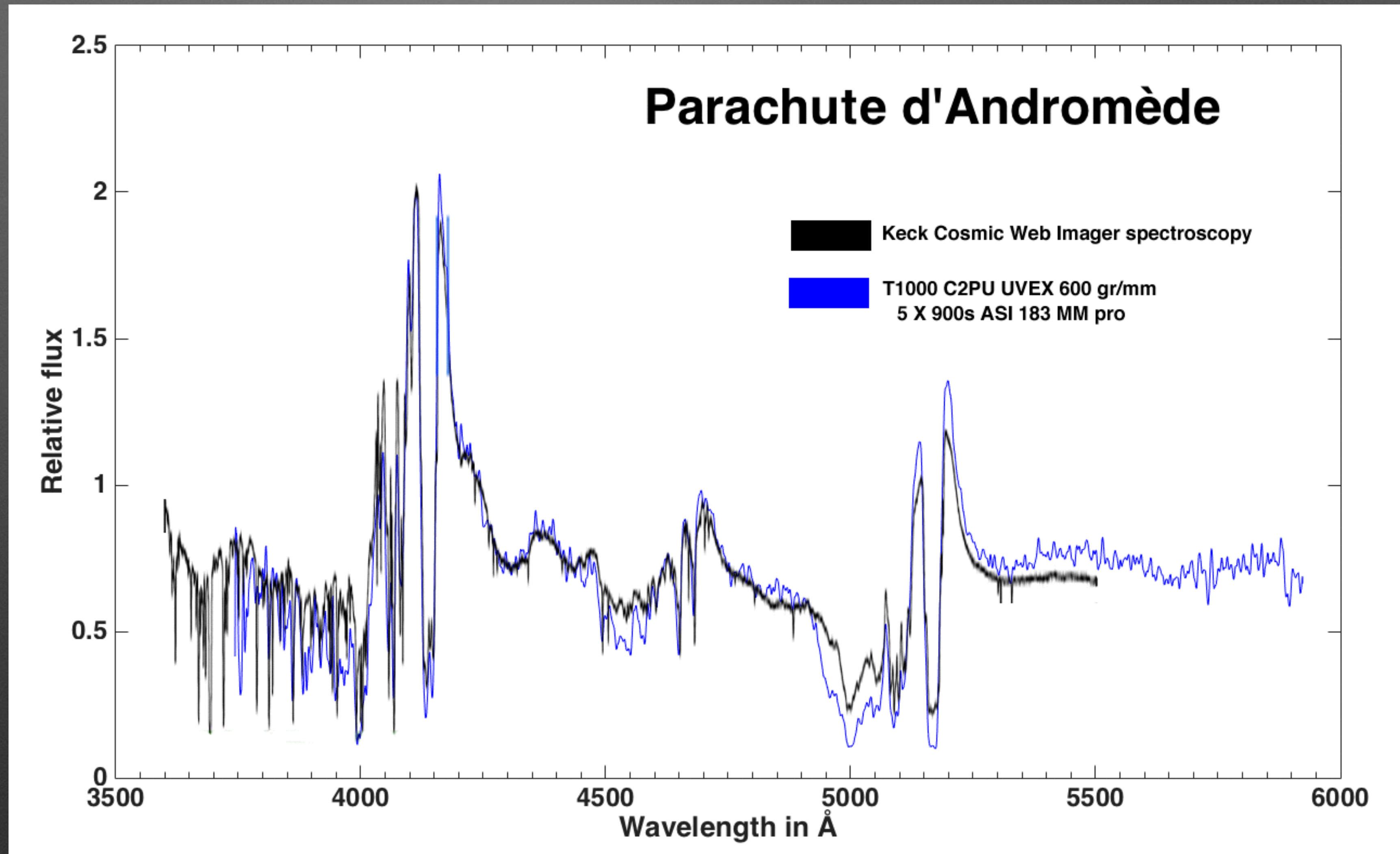


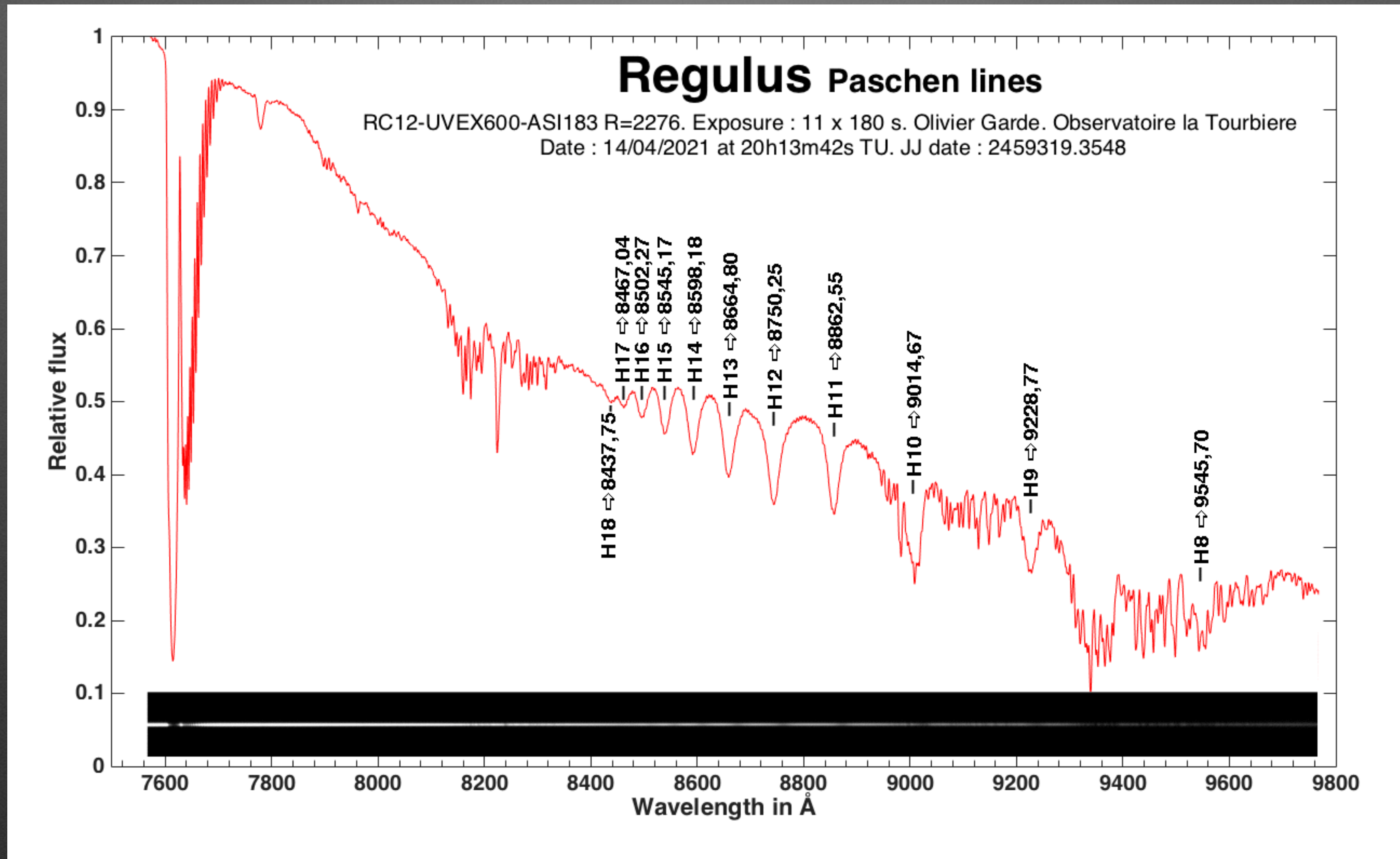
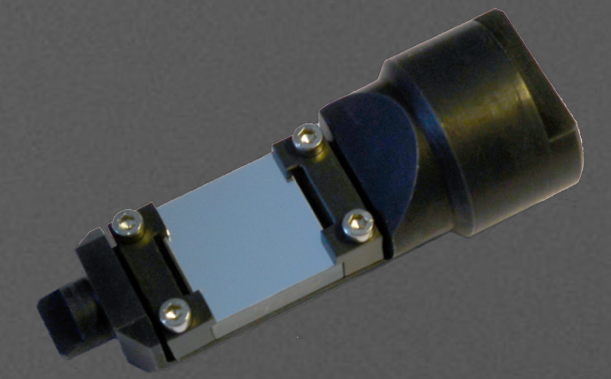
Some results

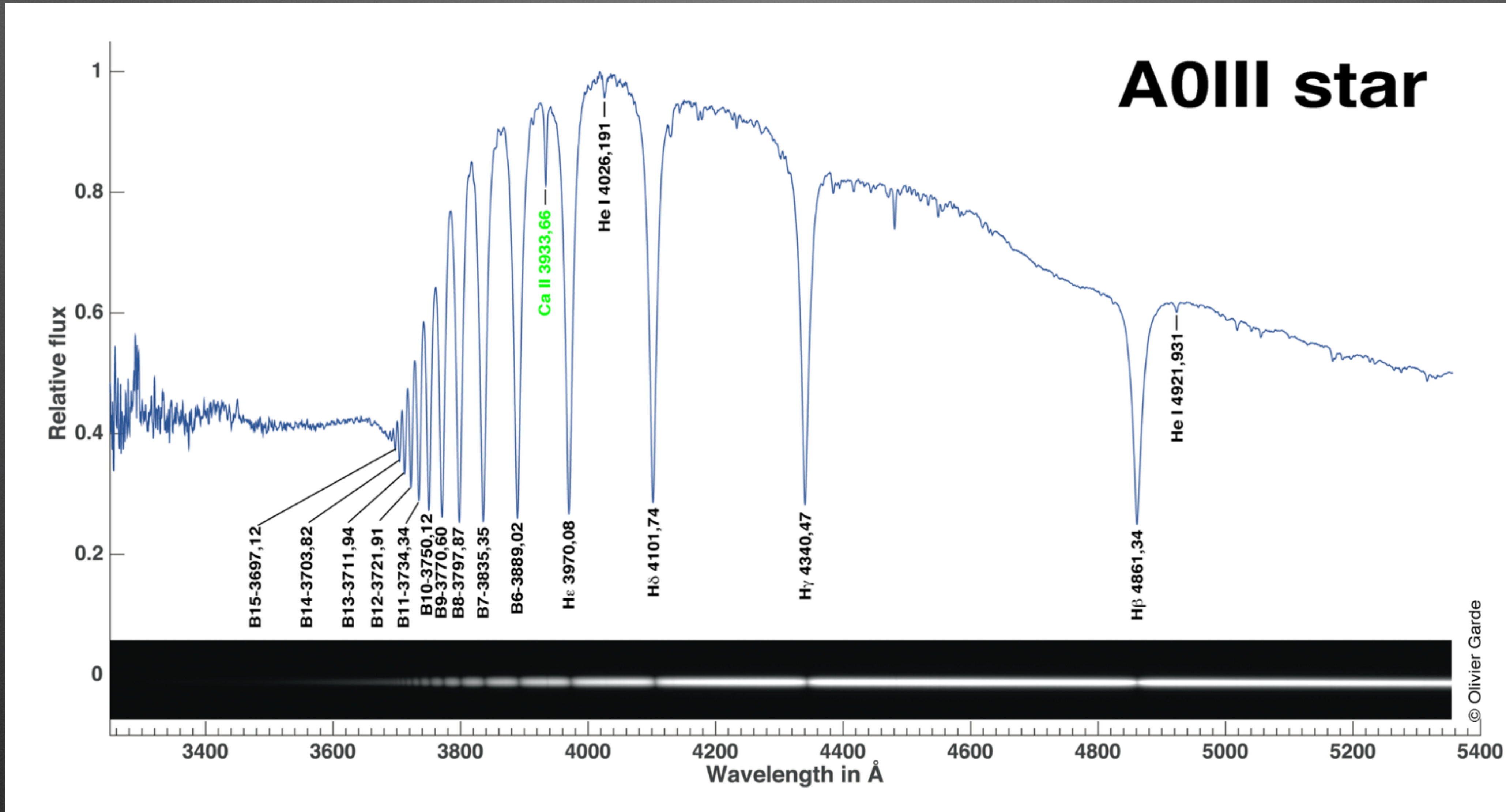
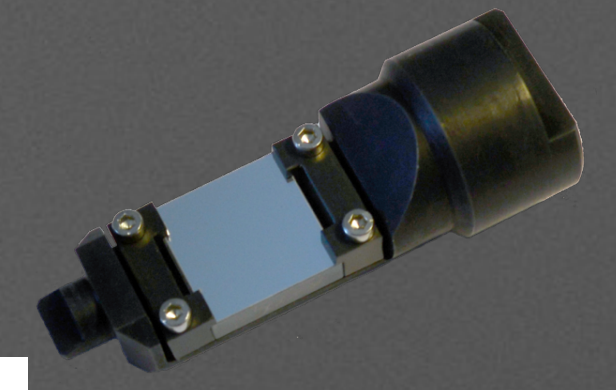
600 gr/mm



Magnitude 15,5
Z=2,377



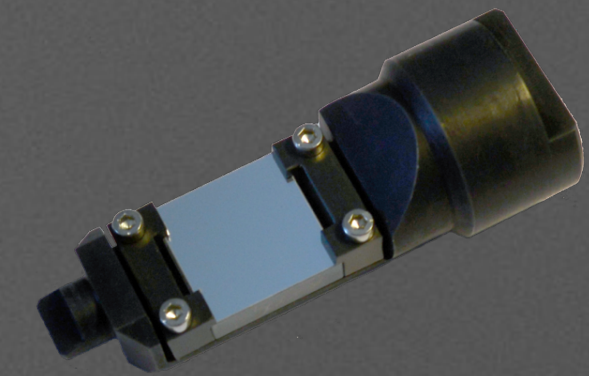




Near UV

Some results

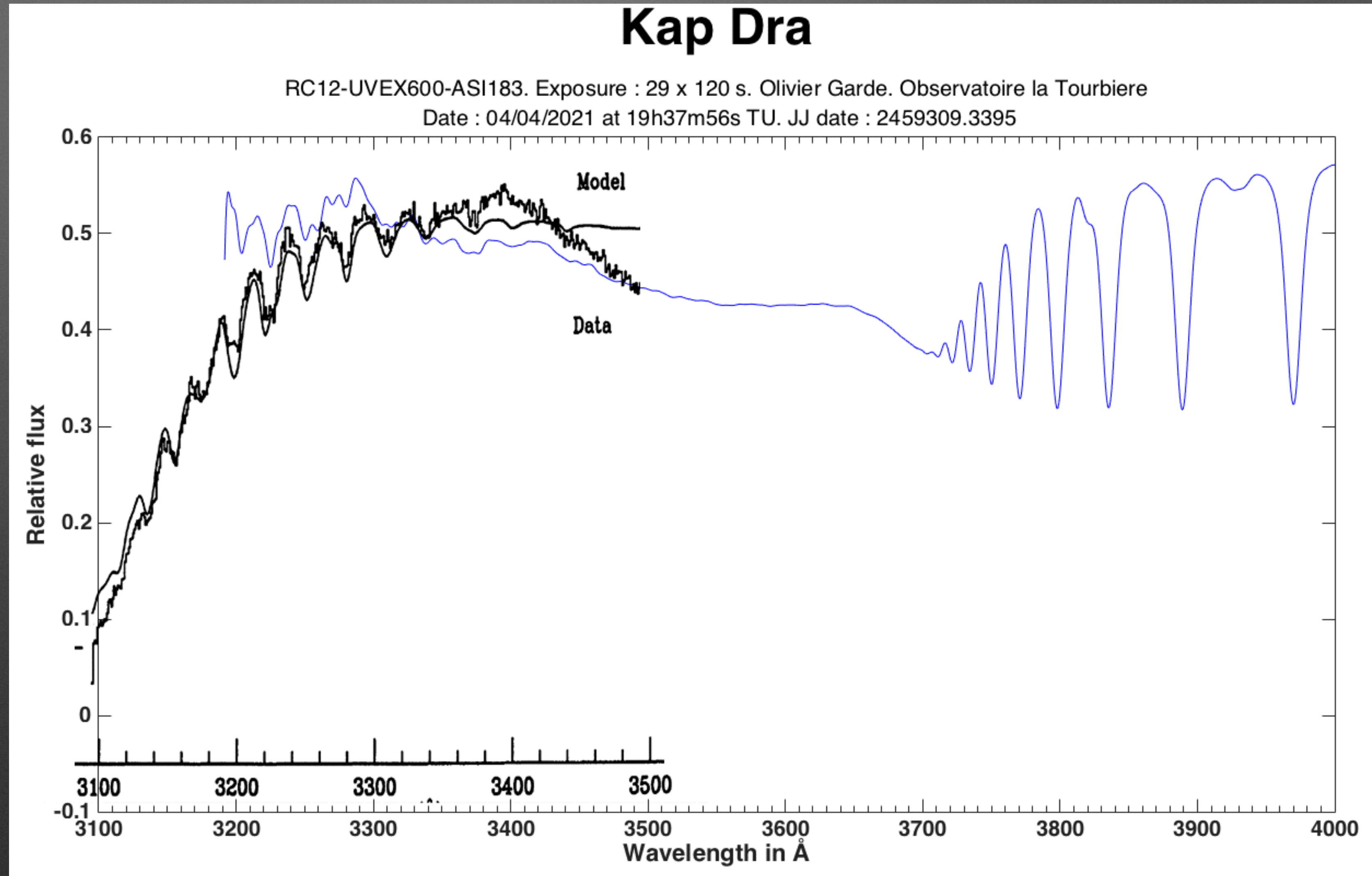
600 gr/mm



Huggins bands detection

Model

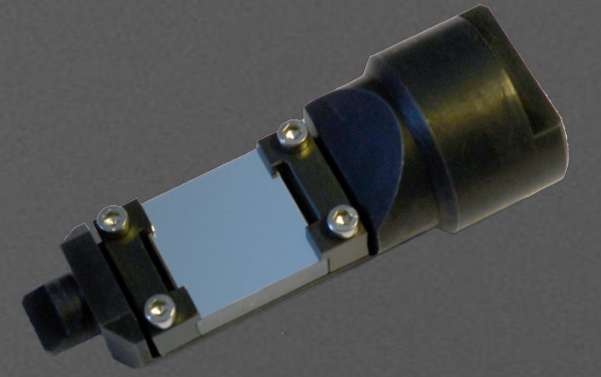
UVEX



R=5700

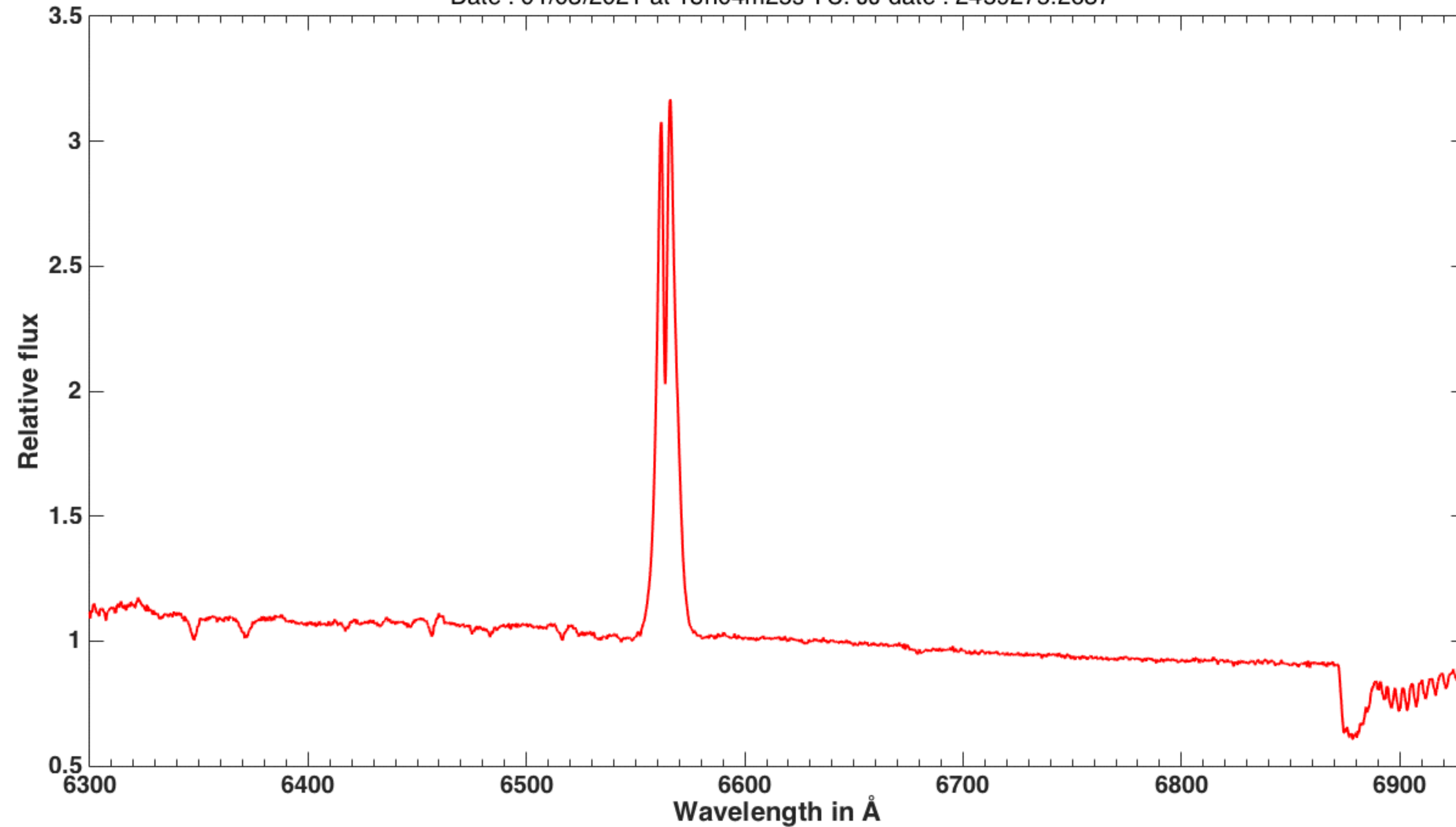
Some results

1800 gr/mm



28 Tau

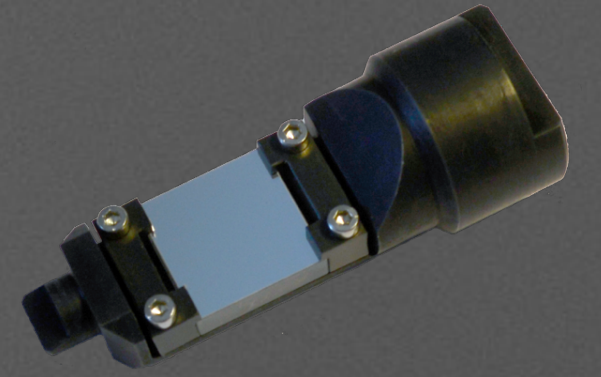
RC12-UVEX1800 R=5700-ASI183. Exposure : 6 x 300 s. Olivier Garde. Observatoire la Tourbiere
Date : 01/03/2021 at 18h04m25s TU. JJ date : 2459275.2637



R=5700

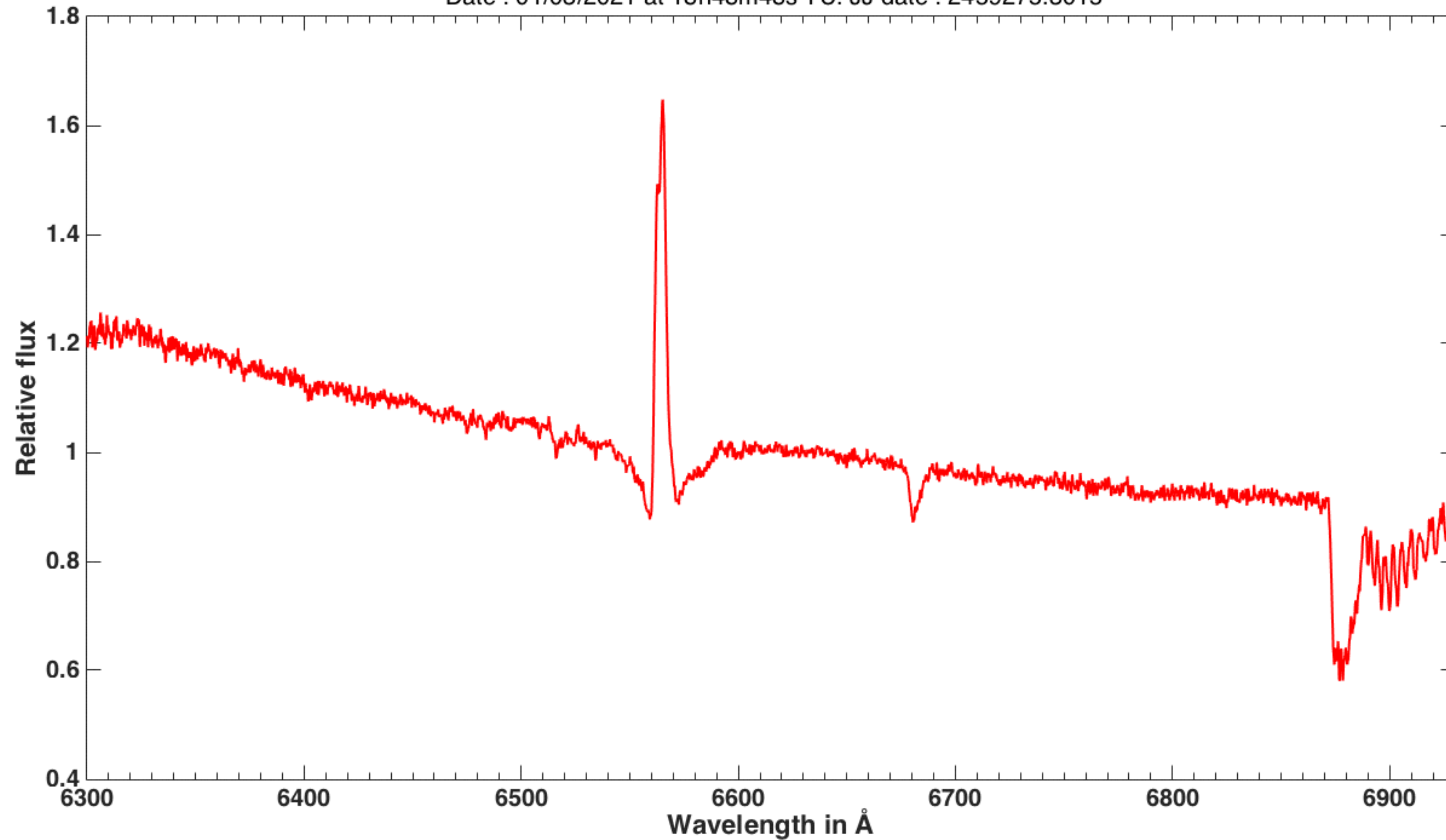
Some results

1800 gr/mm



OT Gem Mag. V=6,45

RC12-UVEX1800 R=5700-ASI183. Exposure : 5 x 600 s. Olivier Garde. Observatoire la Tourbiere
Date : 01/03/2021 at 18h48m48s TU. JJ date : 2459275.3015

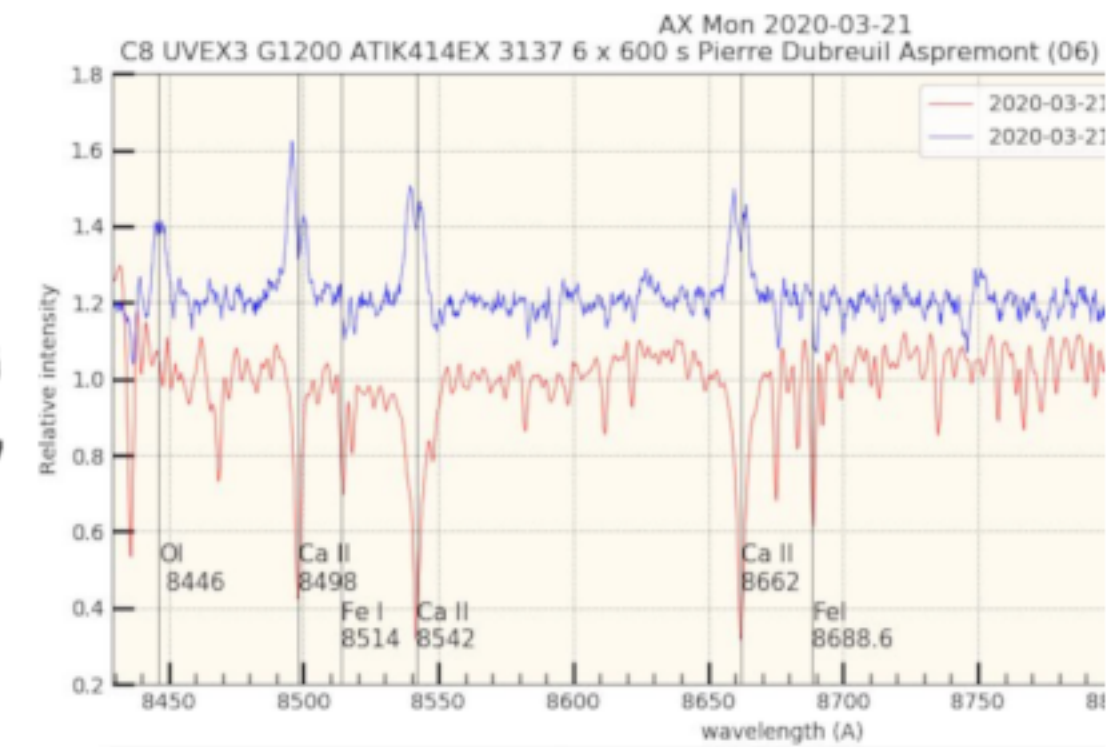
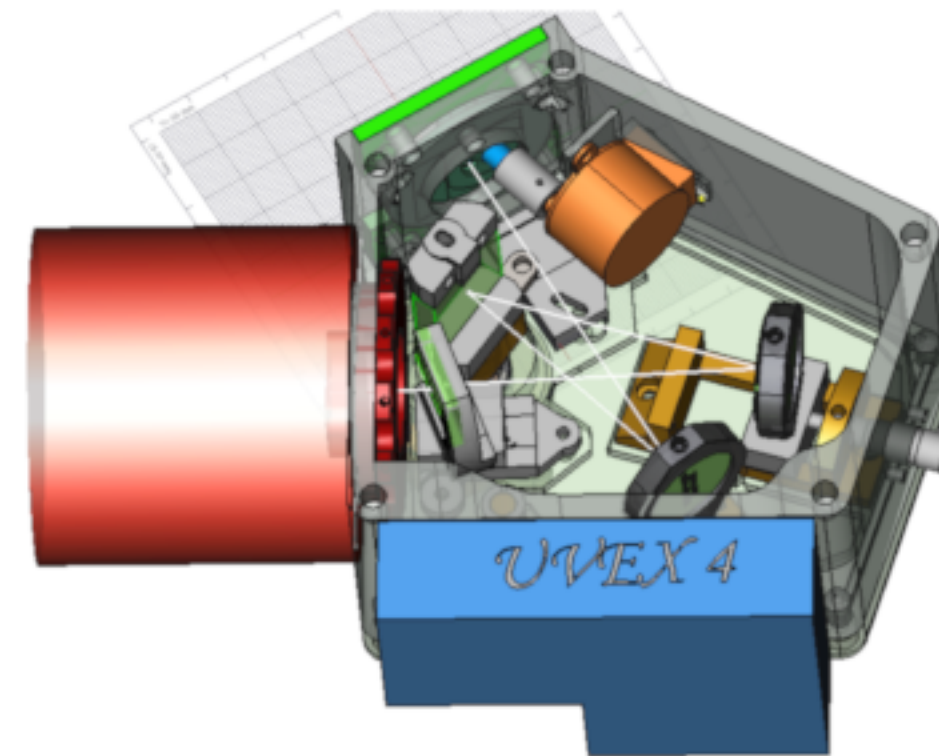
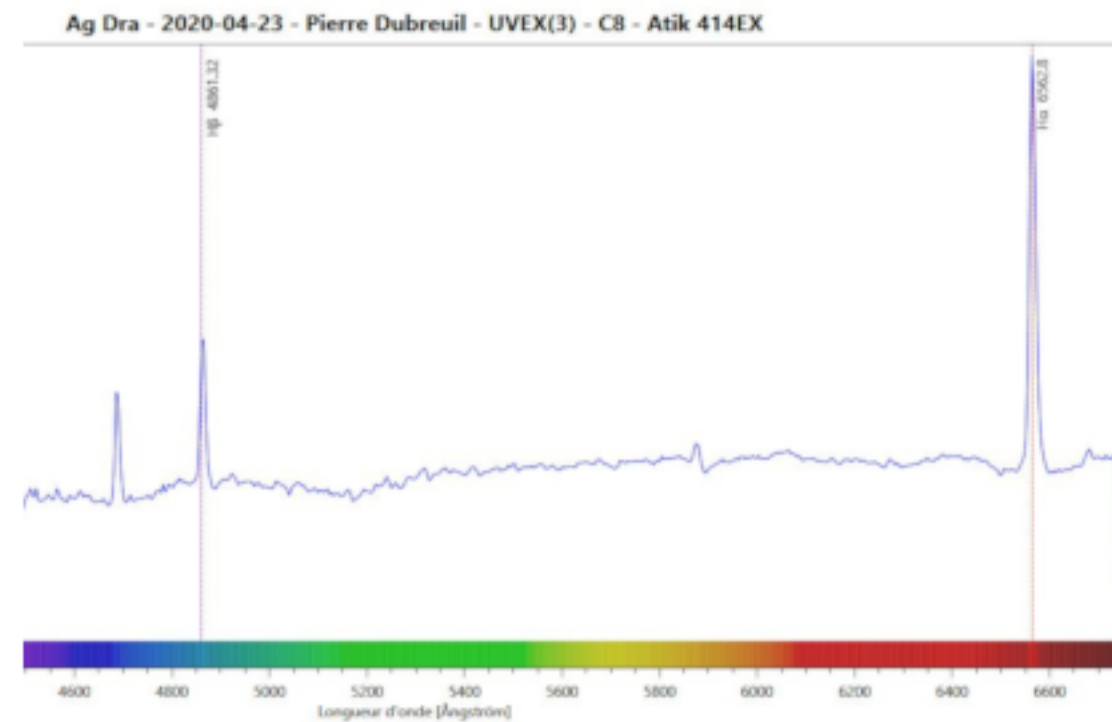


Some useful links about UVEX

UVEX 3 et 4

Spectroscopie UVEX By the Nice People

Le Projet Uvex3 ▾ Uvex4 ▾ Calibrex2 ▾ Guidex Traitements ▾ Observations ▾ 



accueil

UVEX est un spectrographe principalement destiné à l'observation astronomique sur des télescopes de tailles relativement modestes. Il est optimisé pour l'UV mais travaille aussi dans le visible et le proche IR. Sa particularité est de pouvoir être fabriqué par soi-même grâce à la technologie de l'impression 3D.



ARTICLES RÉCENTS

- [Guidex](#)
- [UVEX 4 – Impression STL](#)
- [6- Calibrex pour les nuls](#)
- [Traitement des spectres UVEX 300 traits/mm Caméra CMOS \(ASI183MM\)](#)
- [3- Electronic](#)

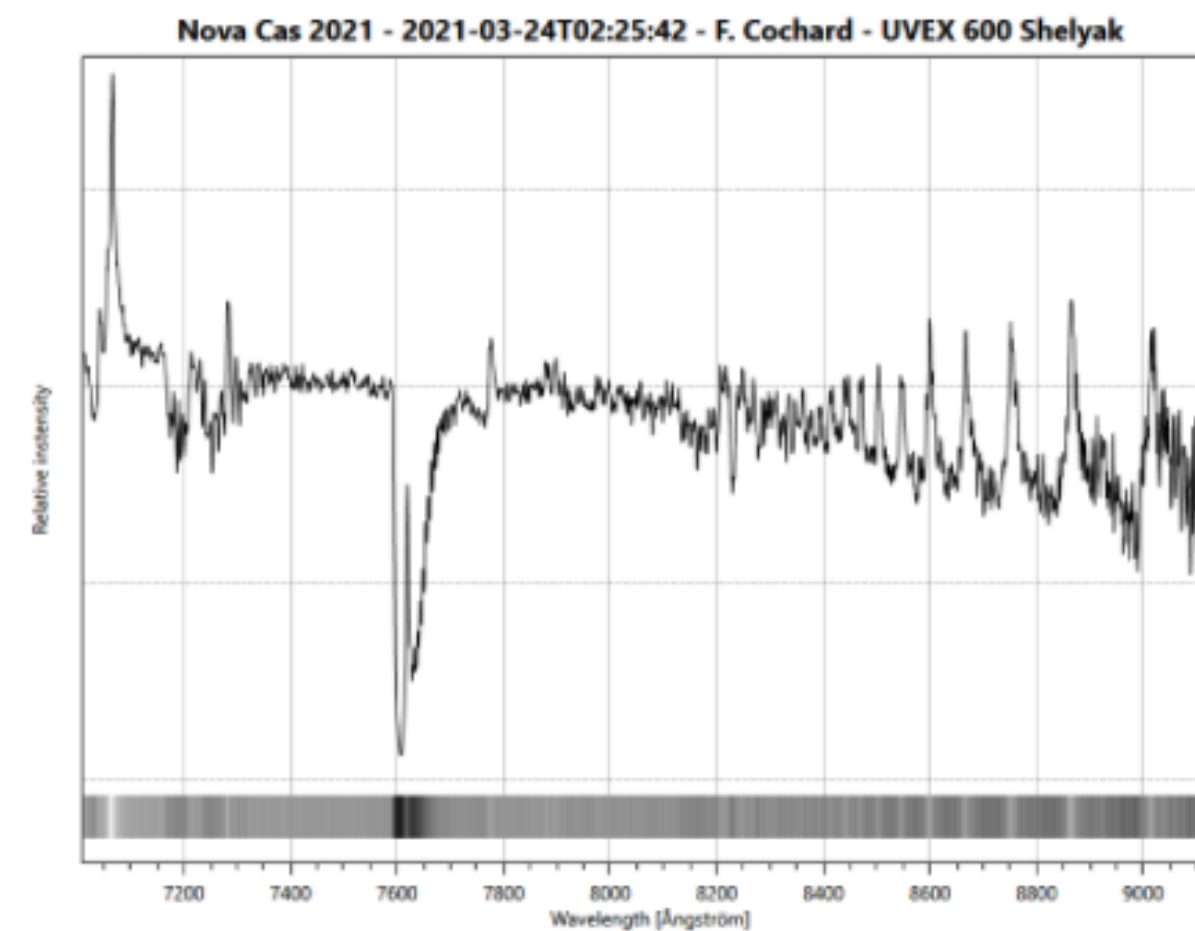
DIY 3D Printing UVEX : spectro-uvex.tech

Some useful links about UVEX



UVEX : ÉCRIRE UNE NOUVELLE PAGE DE L'ASTRONOMIE

Par François Cochard



Nous sommes heureux de vous annoncer l'arrivée d'un nouvel instrument dans la gamme de Shelyak. Cet événement est important à plusieurs titres.

Recherche produit

Recherche de produits... Recherche

DÉCOUVRIR

DÉBUTER

LES INITIÉS

LES EXPERTS

La gamme Shelyak

Non classifié(e) (0)

Découvrir (2)

Débuter (19)

Alpy (13)

Star Analyser (5)

Pour les initiés (20)

UVEX (8)

Lhires III (7)

LISA (7)

Pour les experts (8)

Développements dédiés (1)

eShel (6)

Caméras (5)

Industrial UVEX version www.shelyak.com

Thank you for your attention