

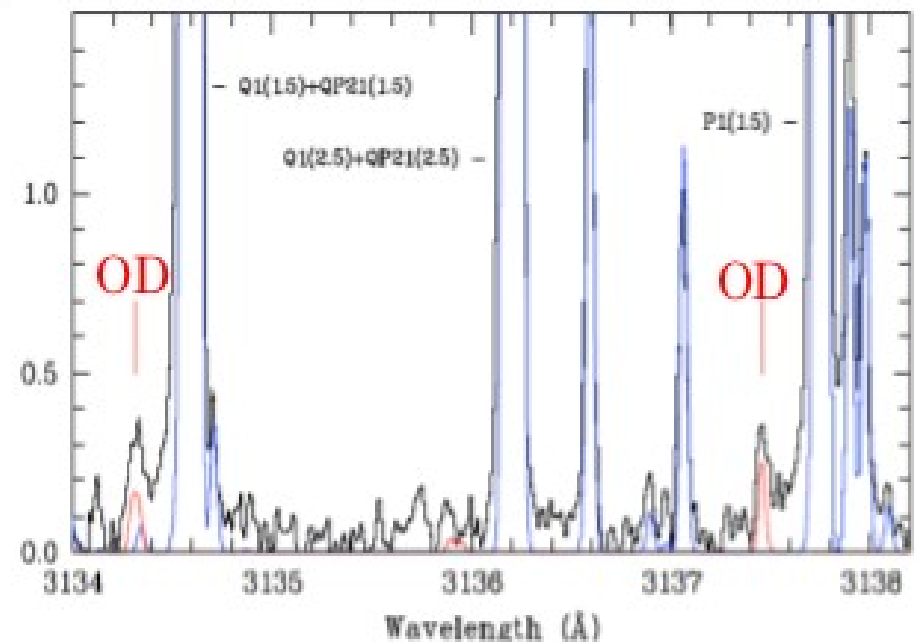
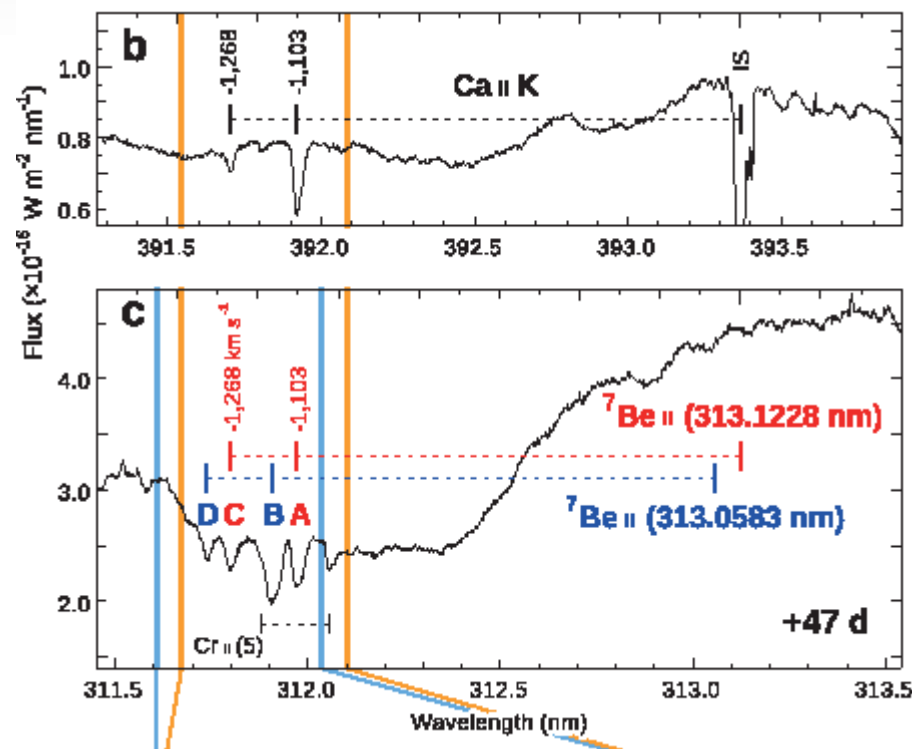
# HDS toward 2020s?

W/power-saving (?) mode

- Easy for maintenance
  - Most stable / No instrument change
  - Usable w/any M2 (PA/MA required)
  - 5 hrs for operation temp.
- Scientific competitiveness
  - No high disp. spec. in TMT (, yet)  
mature technology → Larger aperture is better
  - Max R~160,000 (UVES/HIRES R~80,000-100,000)
  - UV (< 360 nm) capability (EEV CCD, Blue ImR, Direct focus)
  - Multi (4) Objects Unit (~2015), Image Slicers
  - Requirements from ToO obs. (better in facility)

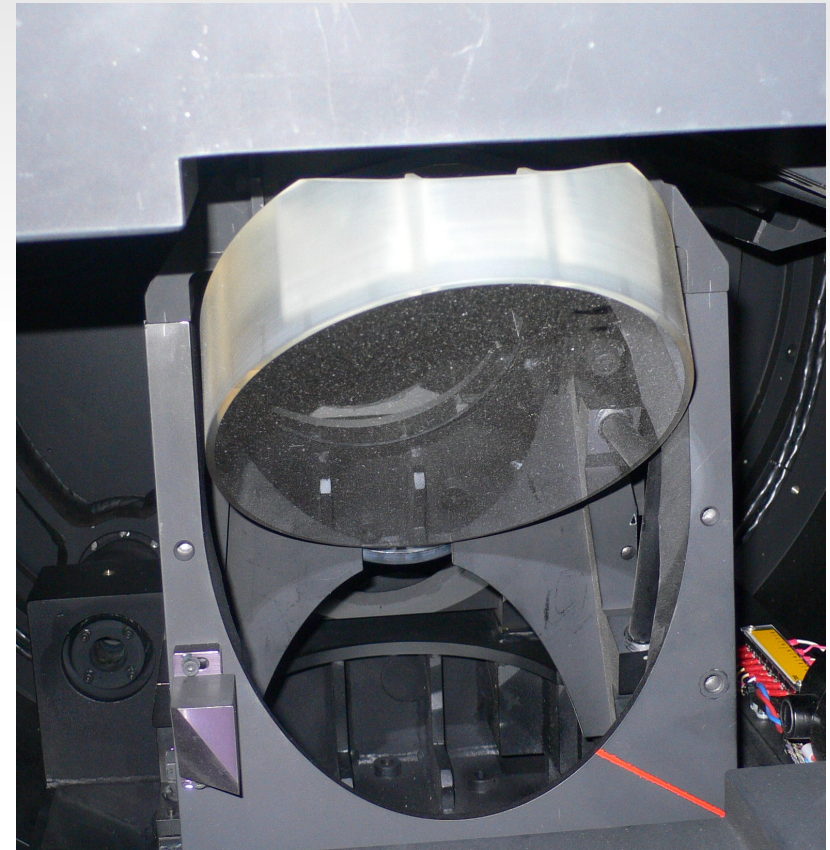
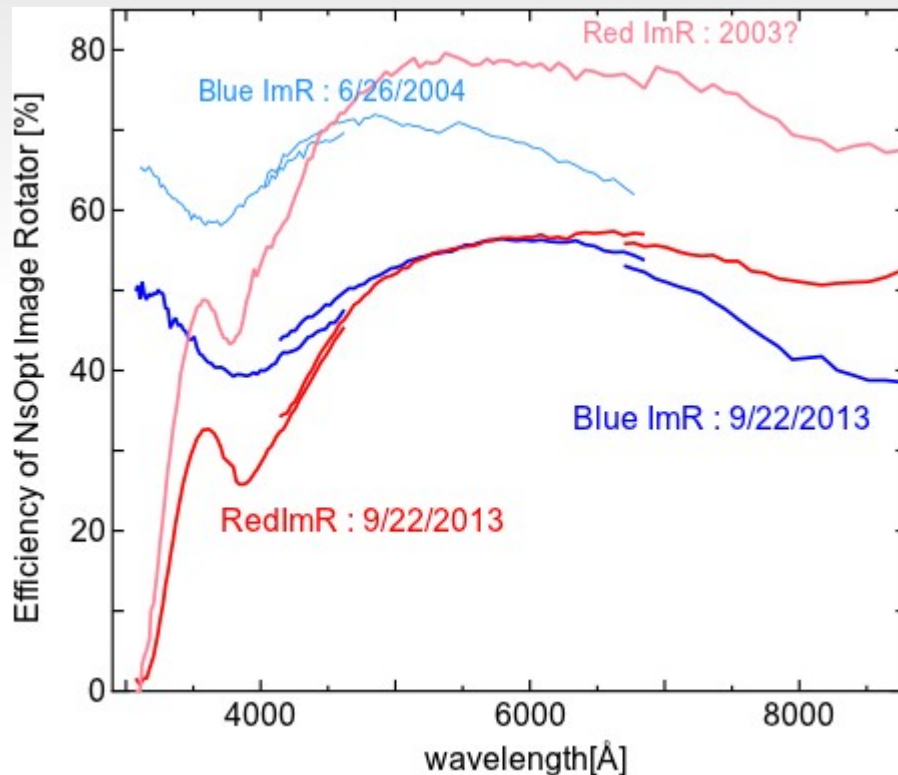
# UV obs. w/HDS

- 10-20 % of all proposals
  - Be II at 3130A
  - OH/OD in comets
  - QSO absorption system ...



# How to keep UV capability?

- [Problem] Degradation of ImR



→ **Recoating Blue ImR ? (~15M JPY in 2002 by NIKON)**

A cover is necessary on NsOpt hole?

# How to save man-power?

- Already, it's easiest to operate & maintain...
- Decomission of Red ImR
  - only used for extended targets... (< 5 %)
  - Function can be achieved w/Blue ImR (if recoated)
  - 2-modes only (w/ADC w/oImR, w/oADC w/BlueImR)  
+ IR-M2 (1-mode; w/ADC w/oImR)
- NsOpt-M2 is still necessary (> 3 nights run?)
  - Efficiency, UV capability...
  - 1-2 nights run can be operated w/IR-M2
- Blue-ImR recoating? (New ADC??)
- AG is not important (but for PA/MA?), SV is important!