

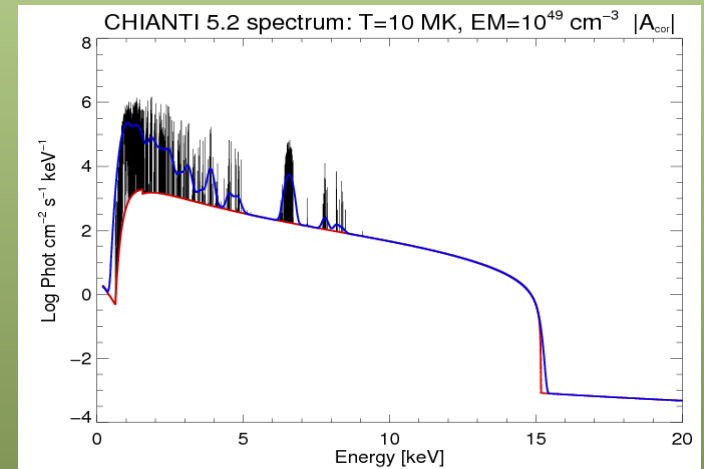
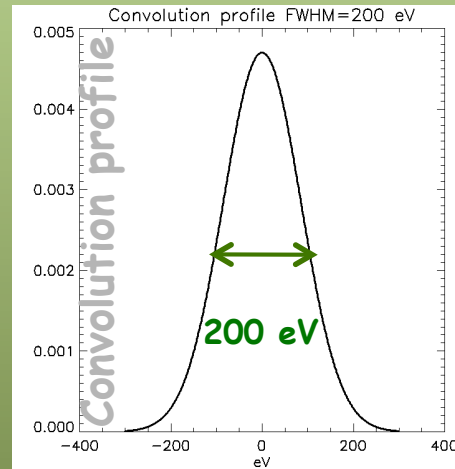
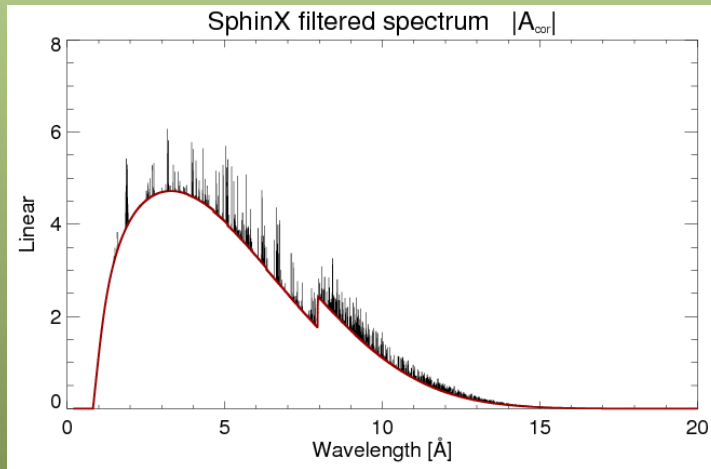
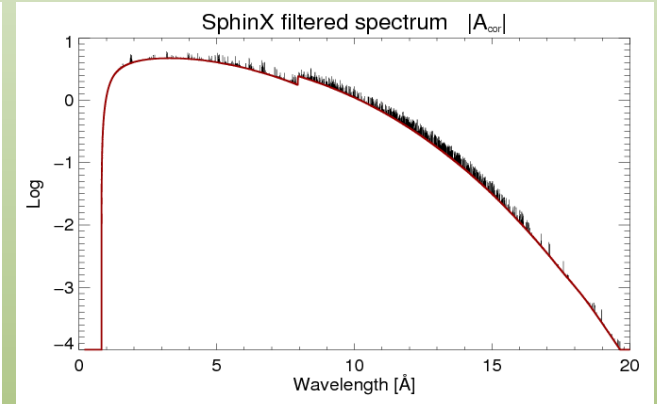
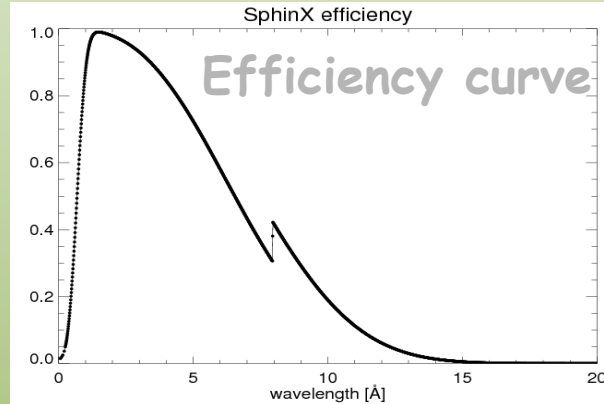
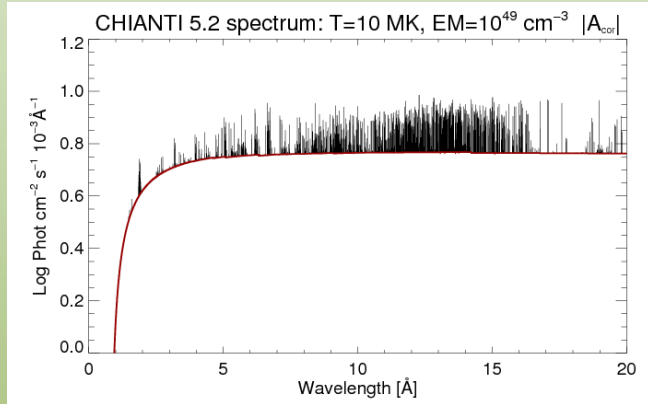
# SphinX spectral synthesis for low activity corona

Barbara Sylwester

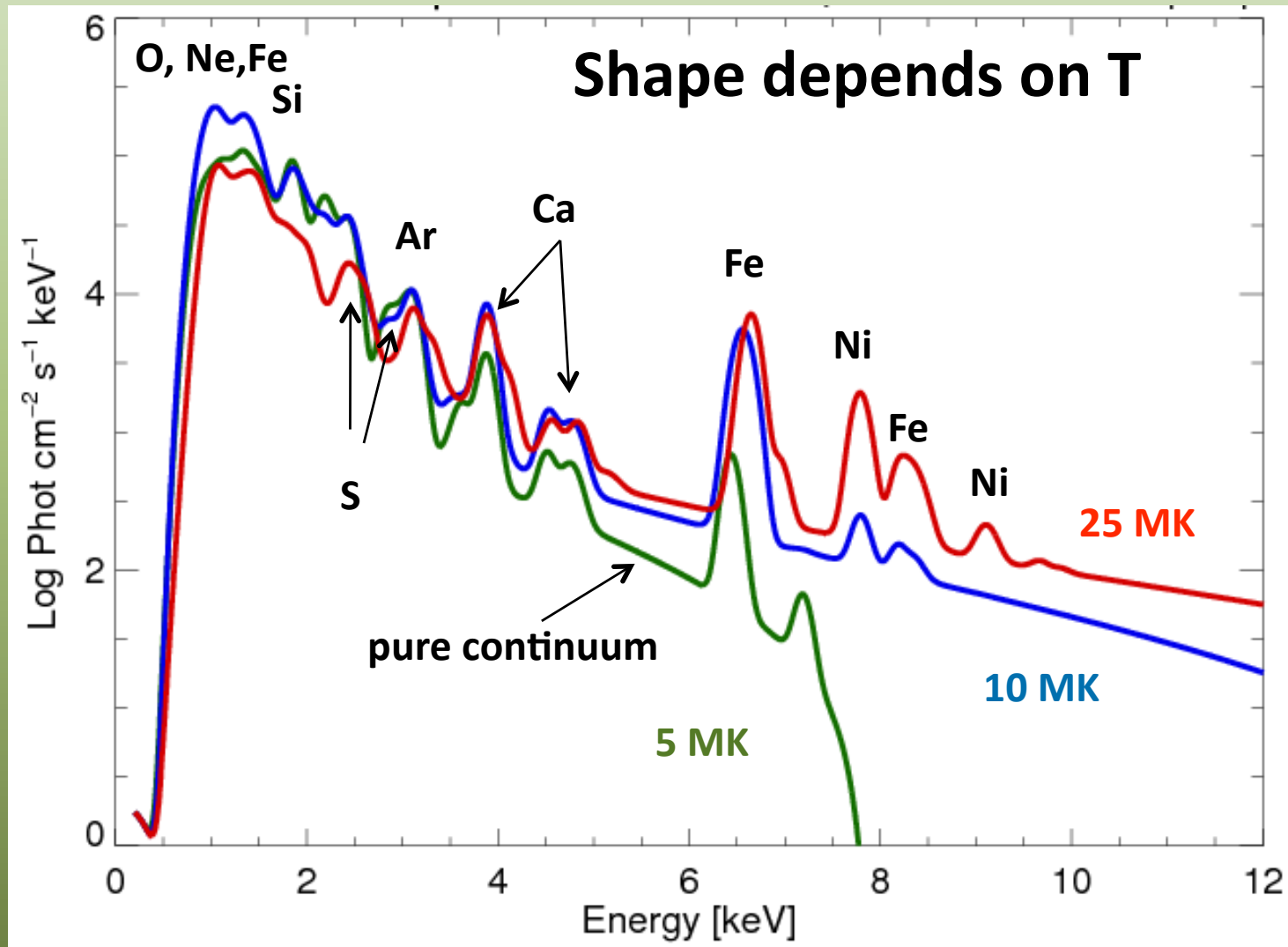
Janusz Sylwester

Solar Physics Division, SRC-PAS

# $T=10 \text{ MK}, EM=10^{49} \text{ cm}^{-3}$

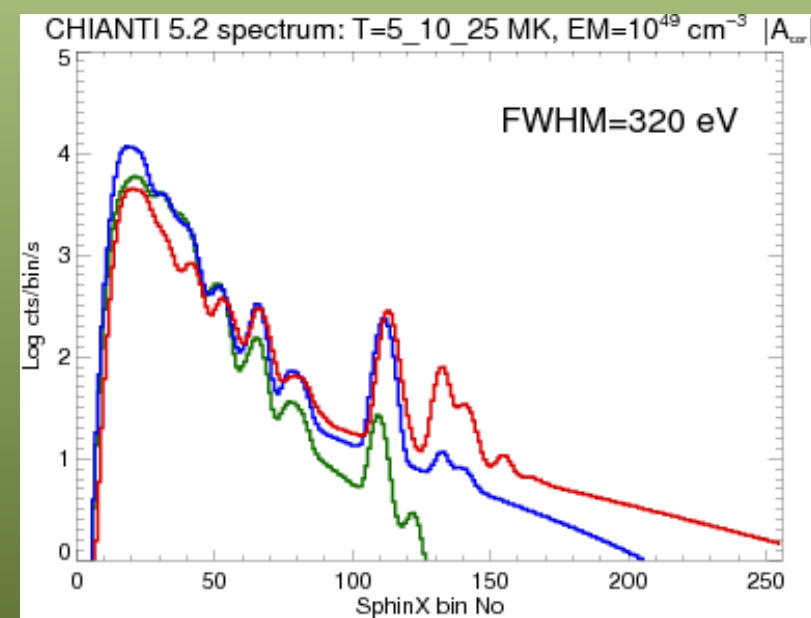
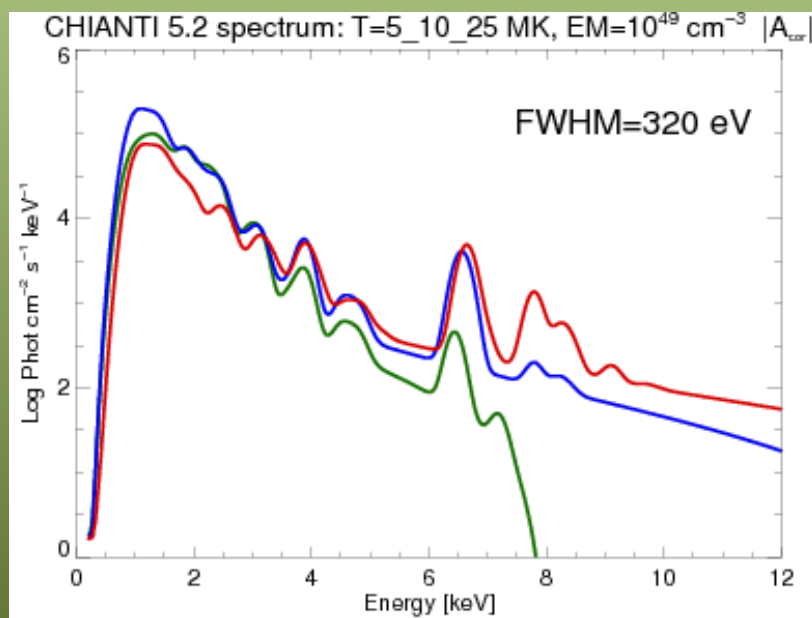
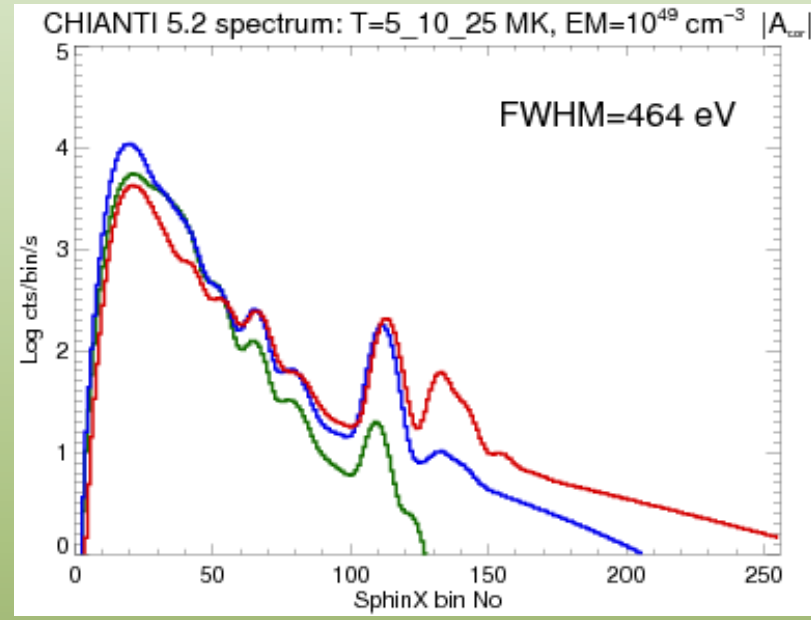
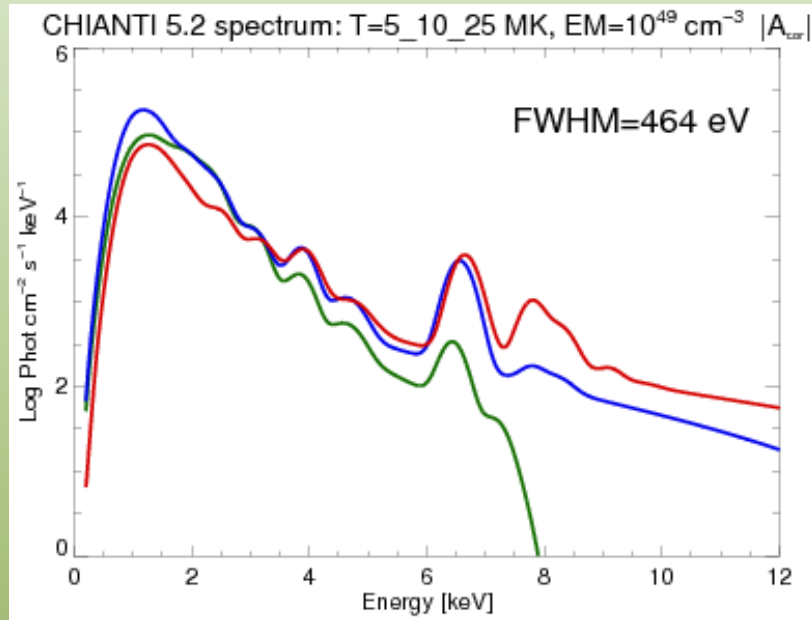


# Temperature dependence; FWHM=200 eV



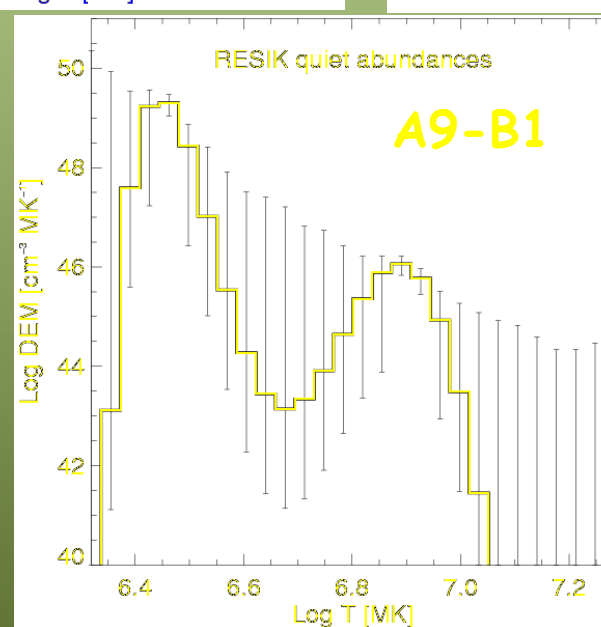
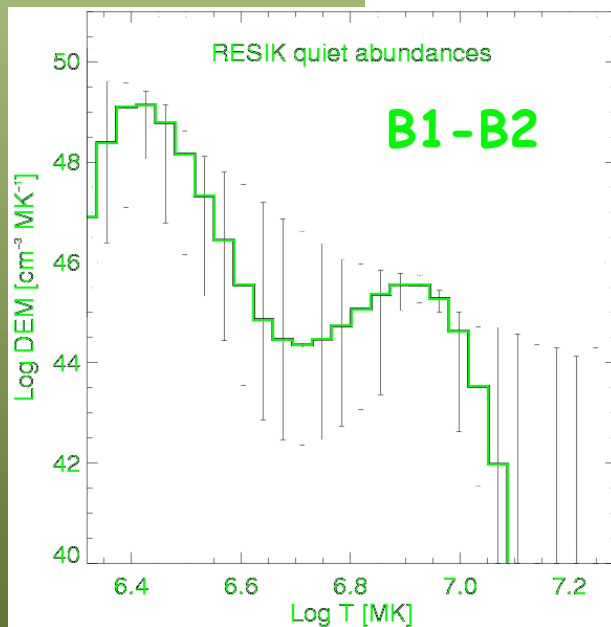
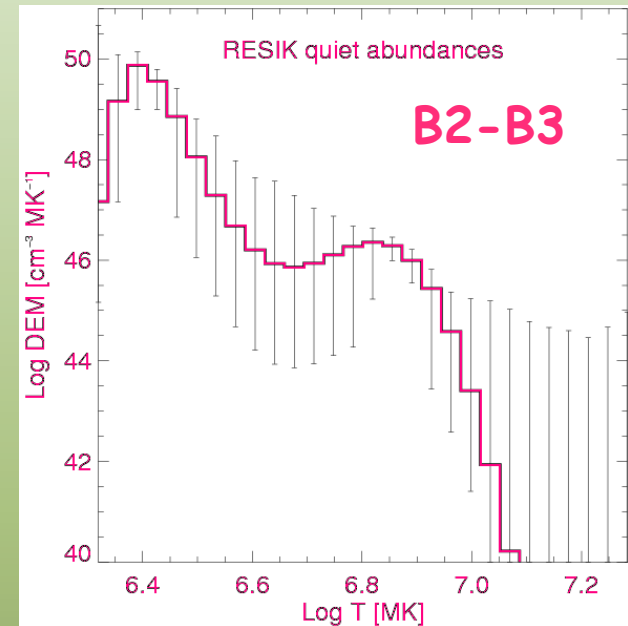
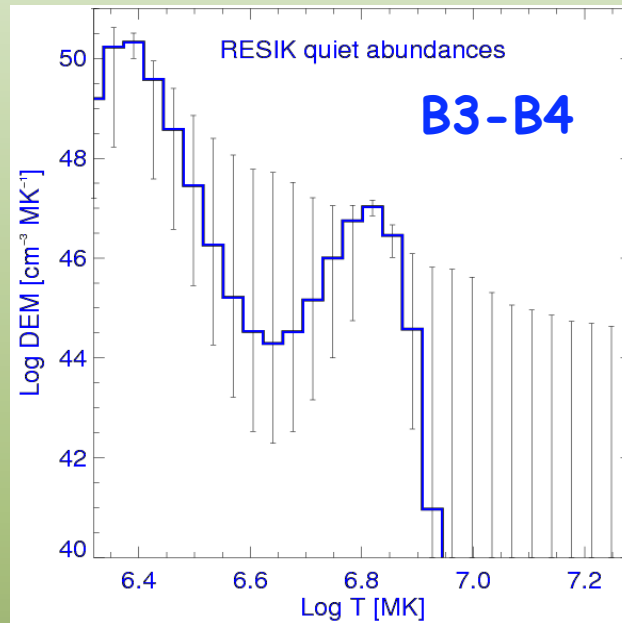
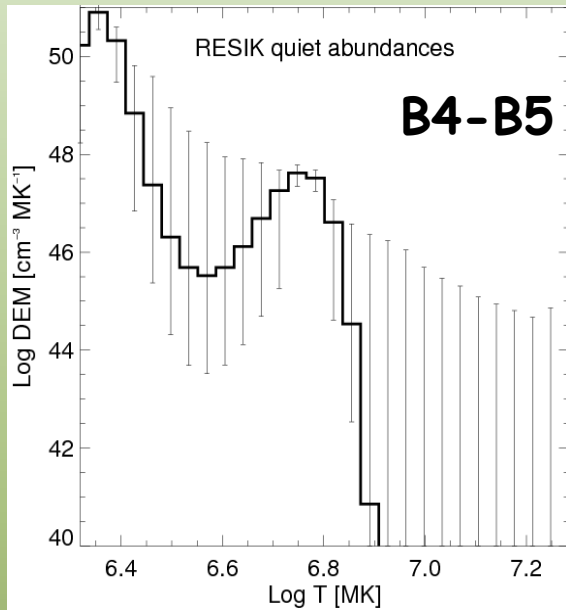
# FWHM dependence: 464 keV & 320 keV (1cm<sup>2</sup>)

ENERGY

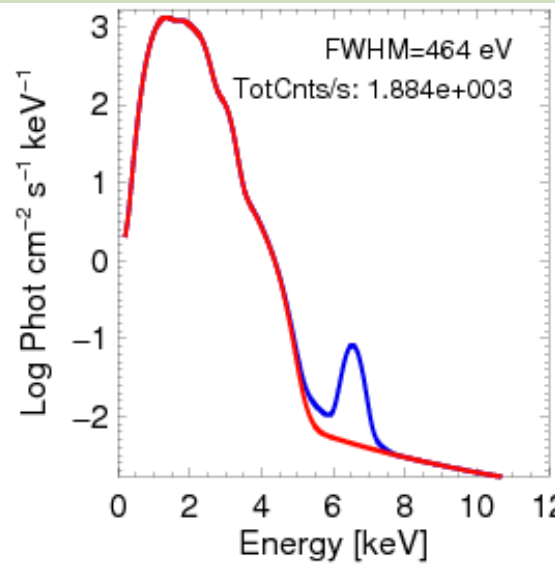
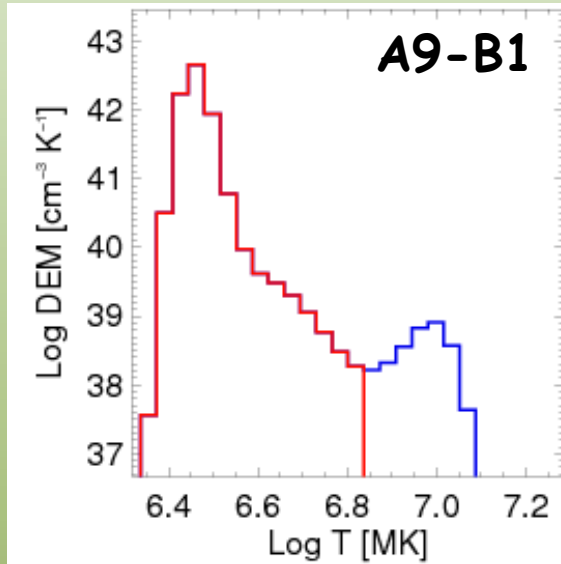


BINS

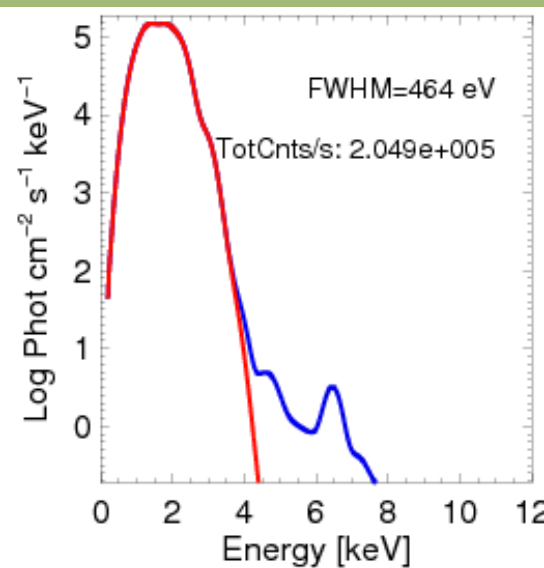
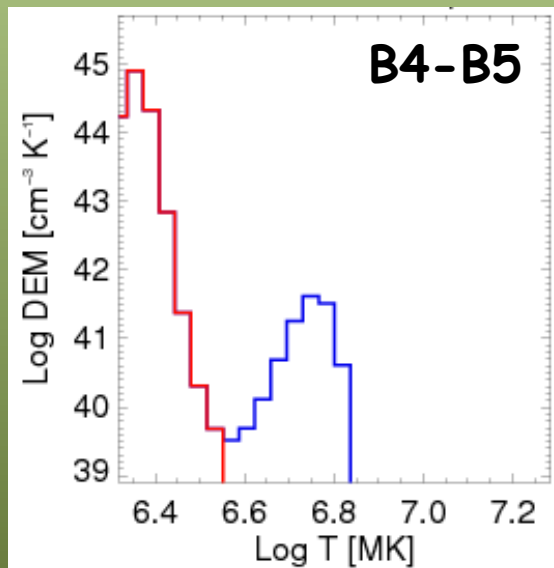
# DEM for different activity levels (based on RESIK)



# Dependence on level of activity; coronal abu.



**D1**

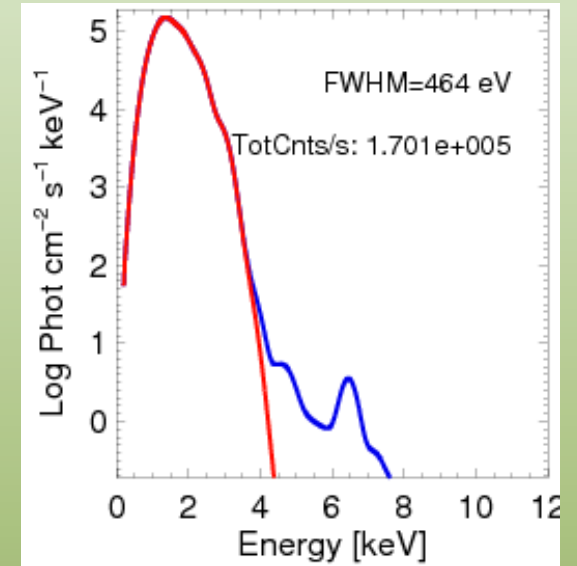
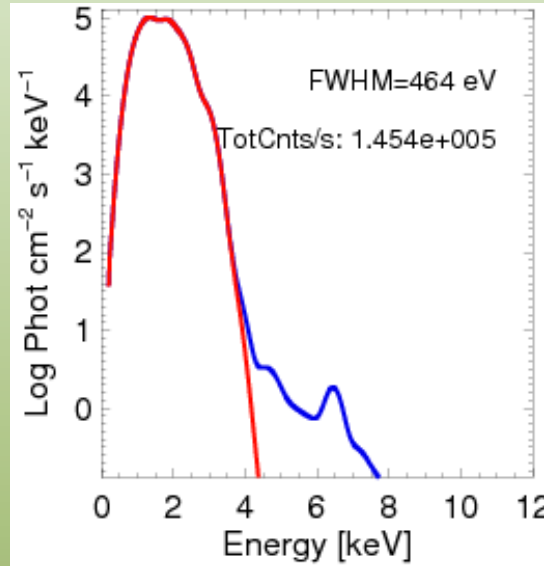
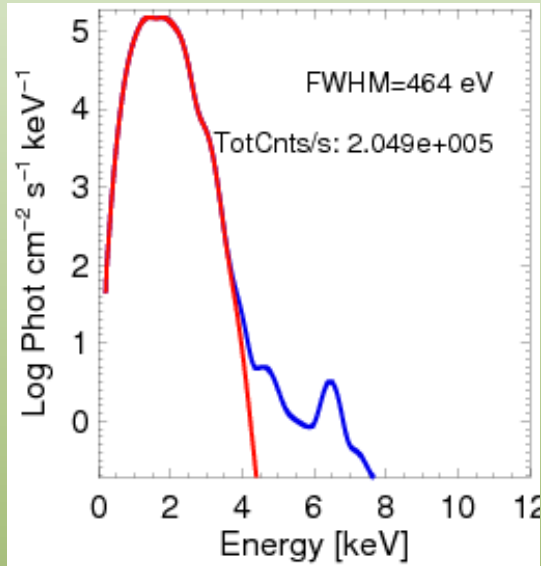


# Coronal abu.

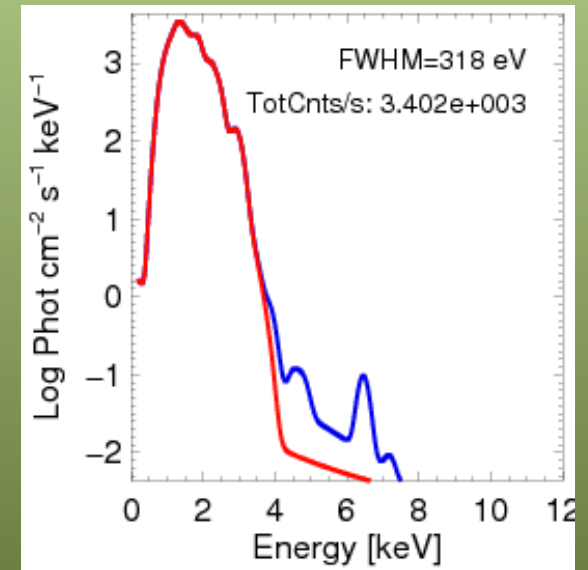
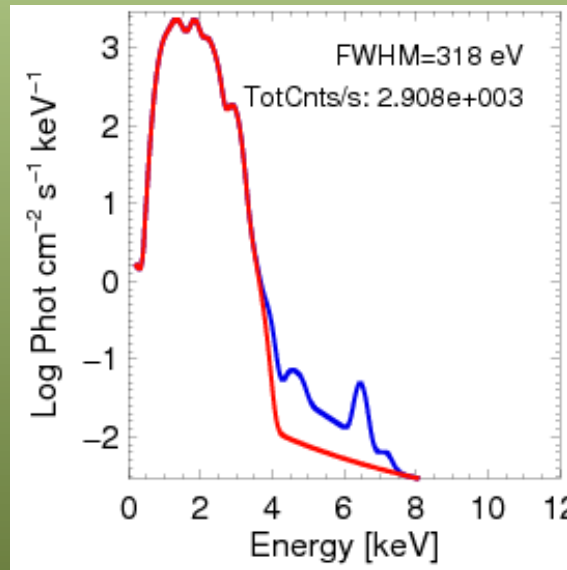
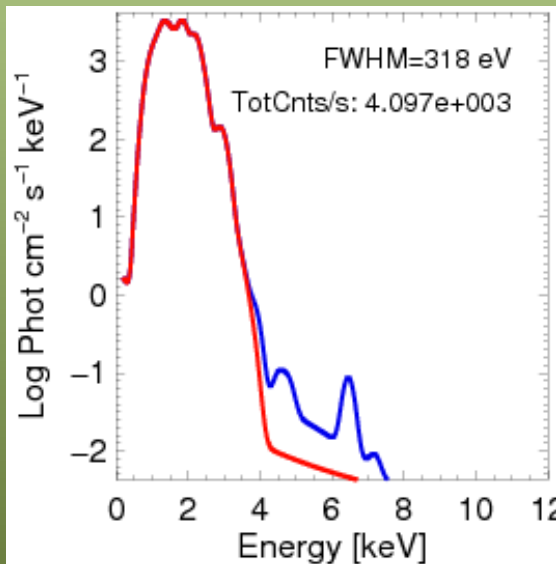
# Phot. abu.

# Quiet abu.

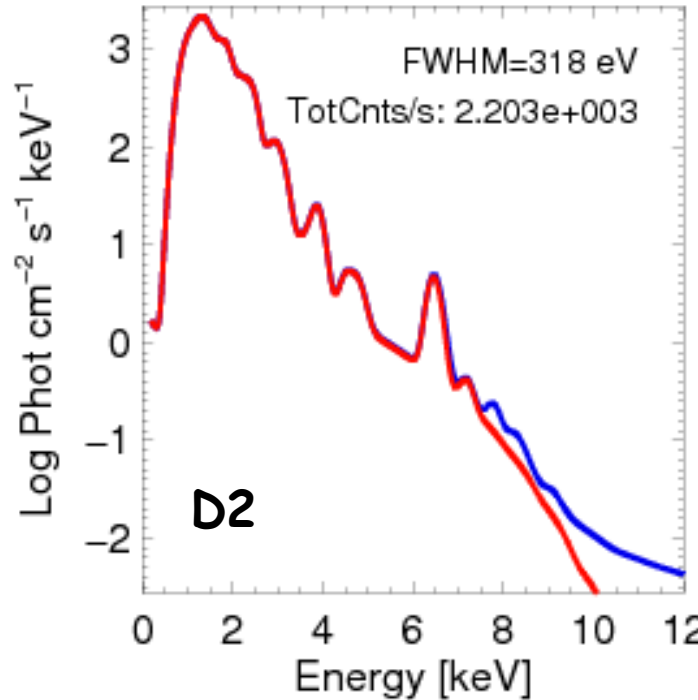
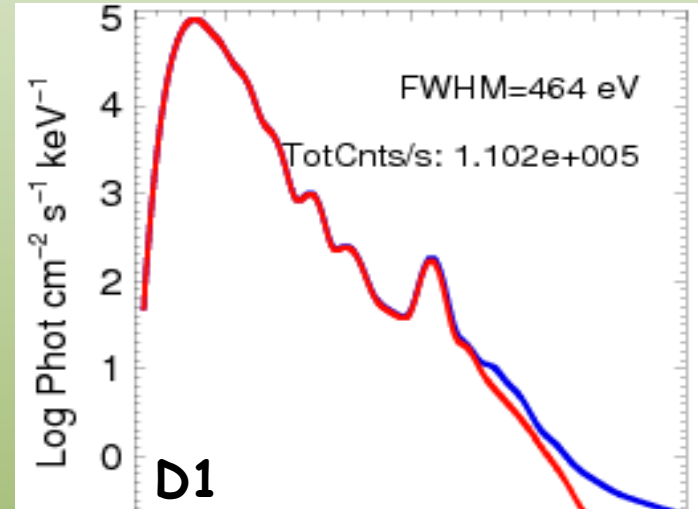
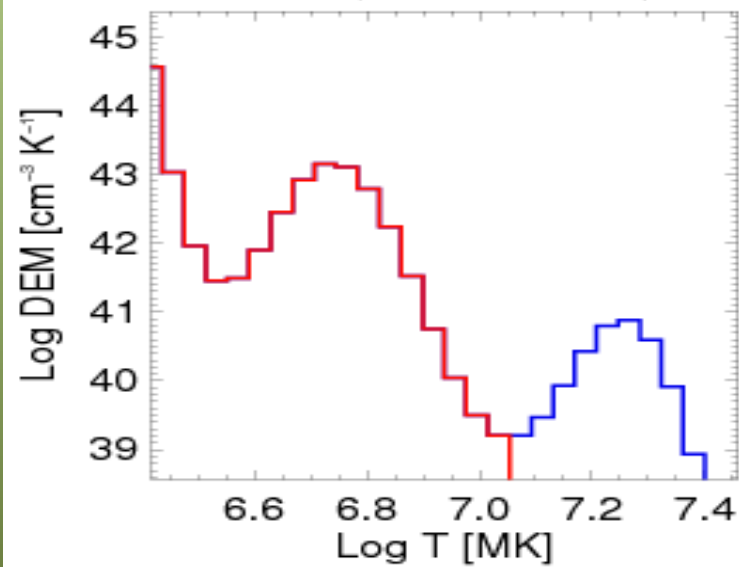
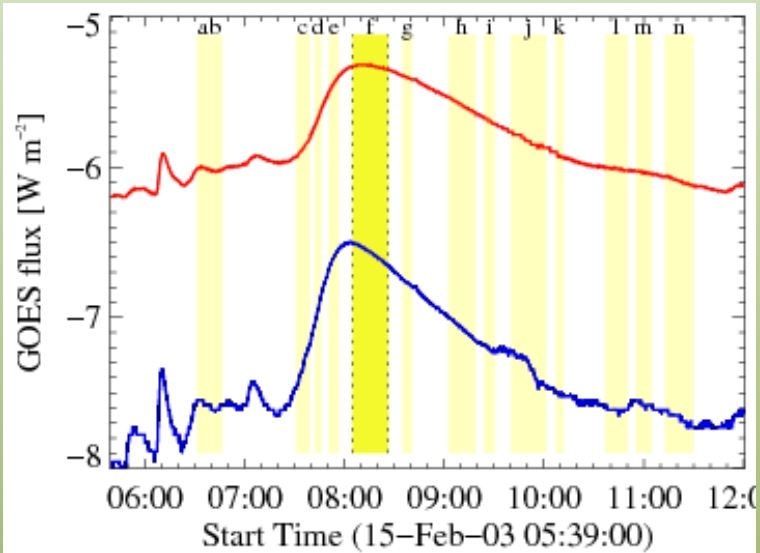
D1



D2

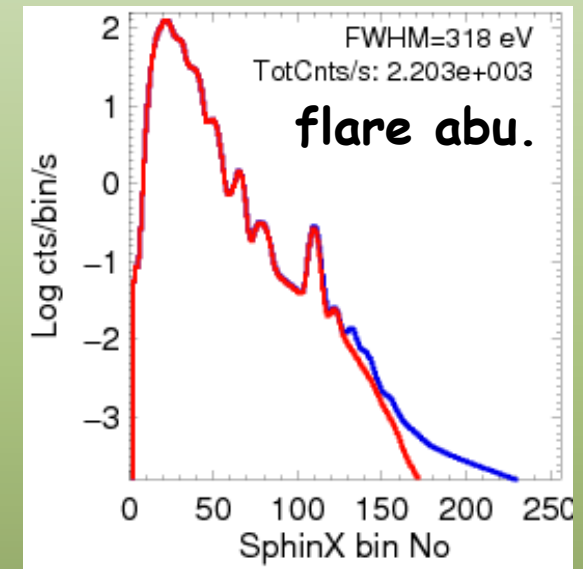
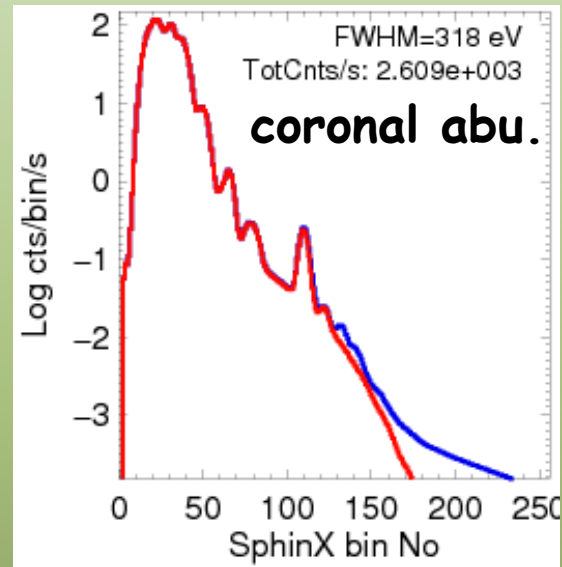
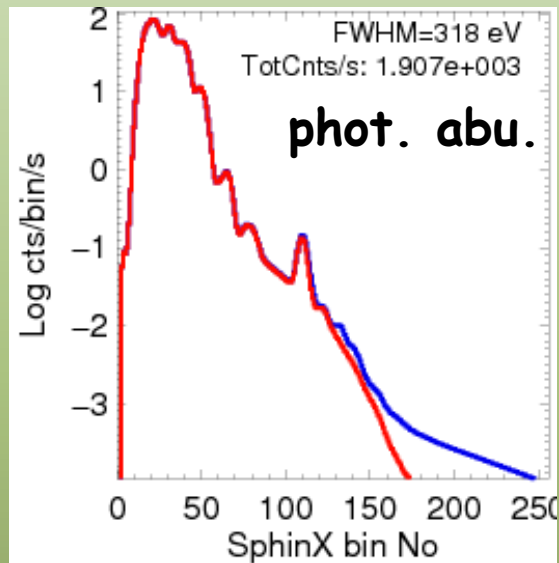


# 15 Feb. 2003 flare (C 4.5); flare abu.





# Flare case; Abundance dependence; D2



# Conclusions

- For present activity level, expected count rates are  $\sim 100$  cts/s in D1
- For activity levels  $\sim B2-3$ , D1 becomes saturated  $\rightarrow$  switch to D2
- It will be possible to distinguish changes of abundance pattern with activity level
- For flares  $> B5$ , 0.01s spectra sampling time appears possible

😊 Thank You 😊

What we observe?

$$F_{\text{obs}} = F_{\text{calc}}(T, \lambda) \times \varphi(T) \times \eta(\lambda)$$