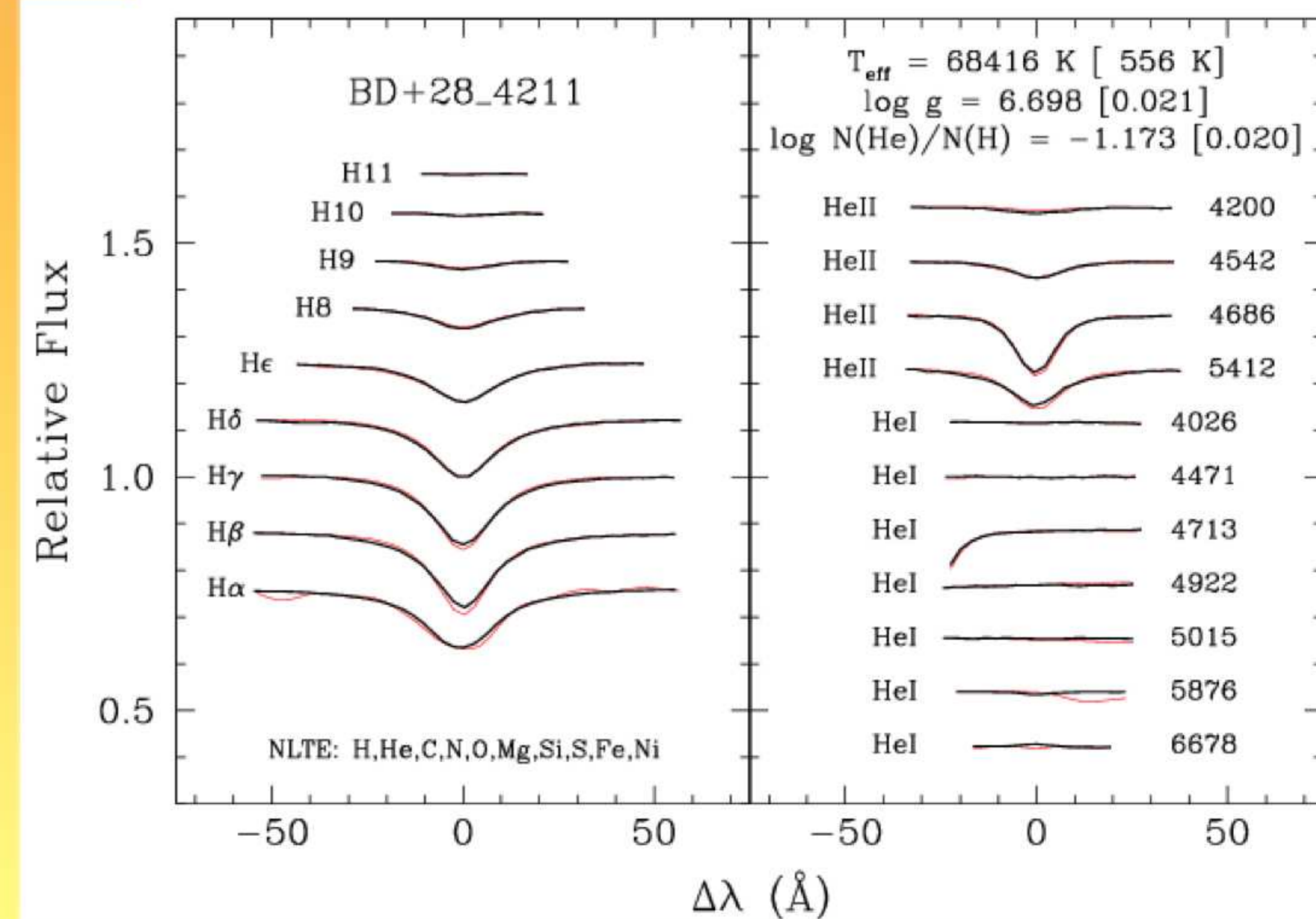
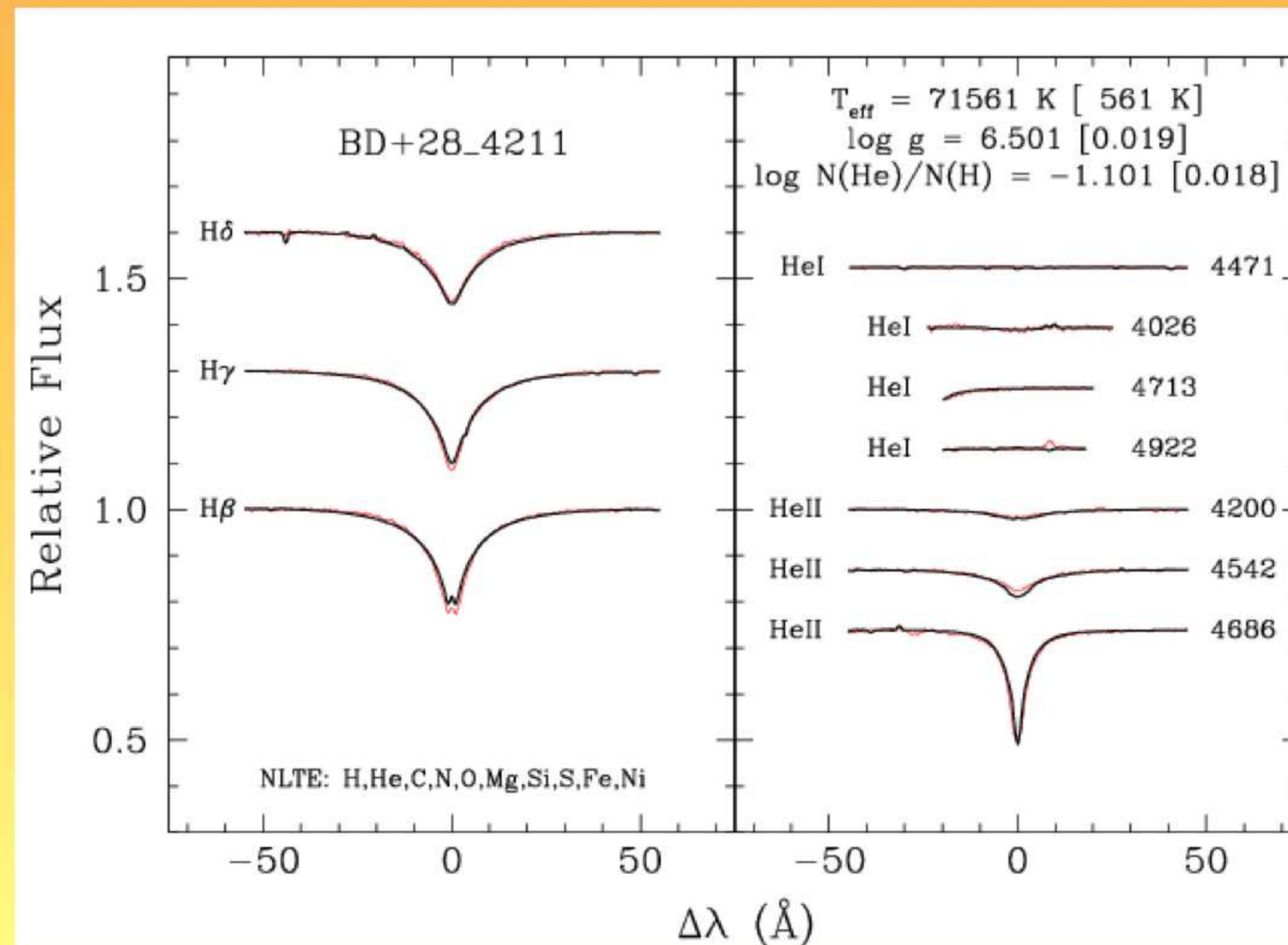
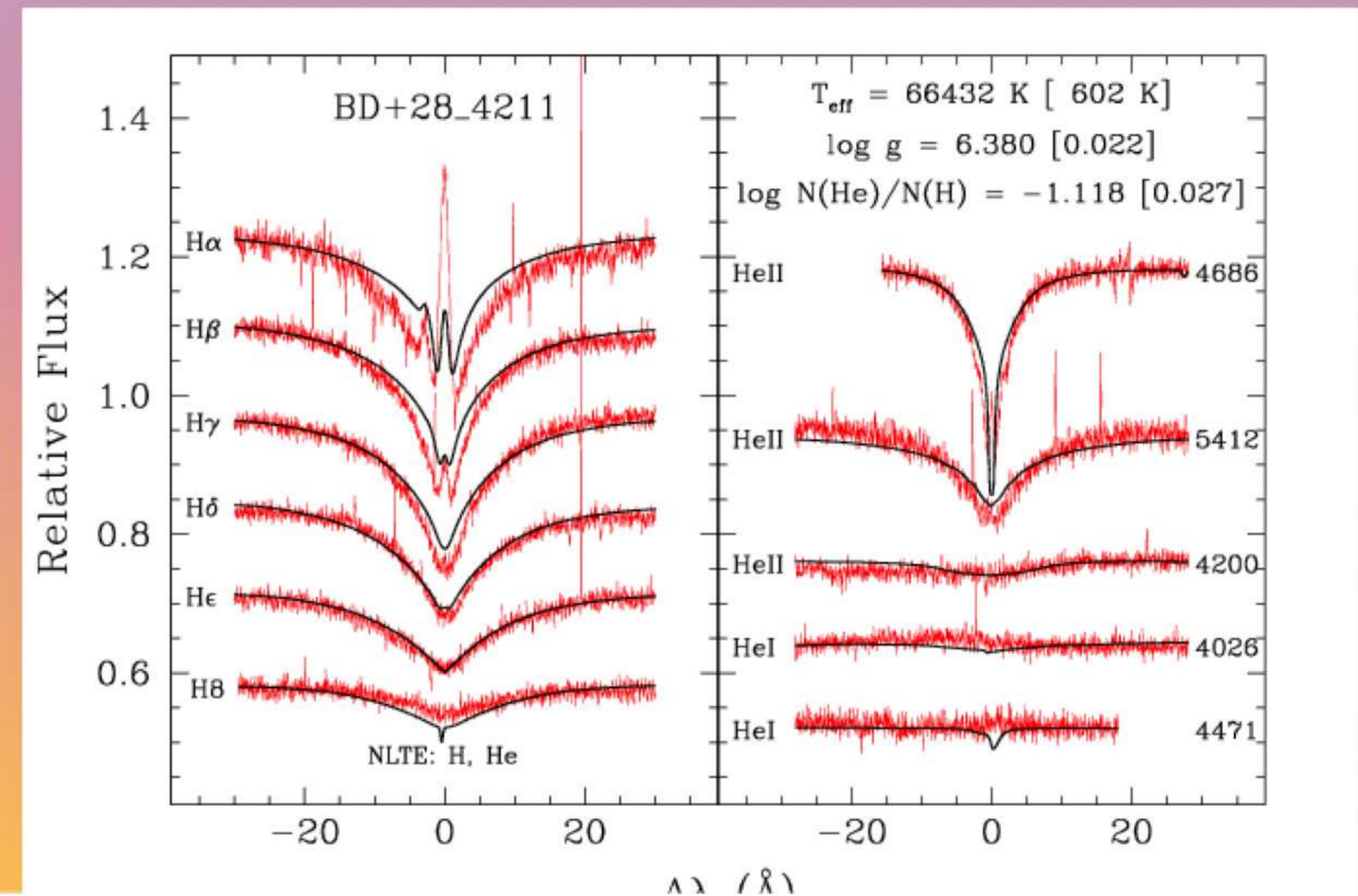


# The hot sdO star BD+28°4211 and the (infamous) Balmer line problem

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## BD+28°4211

- ✧ Bright, standard star
- ✧ Very hot sdO star
- ✧  $T_{\text{eff}} \sim 82,000$  K,  $\log g \sim 6.2$ , solar Helium
- ✧ Balmer line problem !
- ✧ Chemical composition determined with UV data
- ✧ New model atmospheres ☺, new fits
- ✧ Balmer line problem still there ☹





# The hot sdO star BD+28°4211 and the (infamous) Balmer line problem

## BD+28°4211

- ✧ Balmer line problem still there ☹️
- ✧ Because our data are too good...
- ✧ Increase of the models opacity: 10x solar metallicity
- ✧ Saturation effect on the lines at 10x solar
- ✧ New models atmospheres, new fits
- ✧ Great results 😊
- ✧ HIRES spectra for comparison
- ✧ No RVs variation over 14 years ( $\sigma \sim 2.3$  km/s)

