

were averaged, weighting by S/N. The spectra were averaged over all epochs and all spectral resolutions. The pixel size is $4/(1+z_e)\text{\AA}$ and the resolution is approximately $12/(1+z_e)\text{\AA}$ or $\sim 720\text{ km s}^{-1}$. The coordinate names are shown at the top of each plot. The adopted emission-line redshift, used for all calculations, are shown at the top right of each plot. Strong emission lines are indicated by marks and labels at the top of each plot.

The adopted continuum for each object is shown as a dotted line. The 1σ error per pixel is shown as a dotted line at the bottom of each plot. No correction has been been for atmospheric absorption lines. For the higher redshift ($z_e \gtrsim 2.7$) QSOs, the positions of the A ($\lambda_{\oplus} \sim 7610\text{\AA}$) and B ($\lambda_{\oplus} \sim 6880\text{\AA}$) bands, due to oxygen in the Earth's atmosphere, are indicated.

12.3 : BALQSO BAL and BEL Equivalent Widths

Our spectroscopic data set includes 75 epochs for 28 BALQSOs, or an average of 2-3 epochs per object. Each epoch generally contains high resolution, low resolution, and/or moderate resolution spectra. BEL and BAL rest frame equivalent widths as well as a spectral index (α) were calculated for each epoch. These values are shown in table 12-1. REWs were calculated using the continuum fits shown in figure 12-2. The BAL REWs include data points where the normalized flux is less than 0.9, with outflow velocities from 10,000 to 20,000 km s^{-1} for N V, 3,000 to 20,000 km s^{-1} for Si IV, and 3,000 to 25,000 km s^{-1} for C IV and Mg II. This REW for C IV is similar to the “balnicity” index as presented in WMFH, and can be used to compare the BAL strength among objects. Note that since we consider only absorption $\gtrsim 3,000\text{ km s}^{-1}$, objects such as 0302+1705 (see figure 12-2) have very low BAL REWs. Since the wavelength bins for any given object and any given resolution are identical, and since we used the epoch-averaged spectra to determine the “normalized intensity less than 0.9” criterion, the REWs measured from the same resolution spectra are measured from identical wavelength ranges. All REWs