

## **Molecular absorption line systems with 2175Å bumps**

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The 2175Å bump is seen almost everywhere we look within our Milky Way, but when looking to high-redshift galaxies, this spectral feature is rarely identified. Therefore, in order to study the bump and how it correlates with various parameters, we have performed a targeted search for high-redshift absorption systems exhibiting this characteristic feature towards quasars.

For such quasar absorbers it is possible to partly recover the extinction curve from the absorbing gas, and thereby one can correlate the extinction features with detailed abundances from the absorption lines seen in the spectrum of the background quasar. We have used this technique to study a specific absorption system in great detail, where we have absorption lines from molecular and neutral gas which can constrain the extinction curve independently from the reddening of the observed spectrum. Using this technique we can start to probe the relations between the 2175Å bump strength and the grain size and composition in high-redshift environments.