Results from a Magellan Spectroscopic DAZ Monitoring Campaign

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The MIKE optical spectrograph on the Magellan Telescopes is a powerful instrument for detecting and monitoring the faint metal lines present in nearby DAZ white dwarfs. With a spectral resolution of ∼30,000 and spectra with S/N>20 that cover from 3500Å to 9500Å, we can both monitor the Ca H and K lines as well as search for other metal lines of Mg and Fe. We present monitoring of 30 southern DAZs for variability in their Ca H and K lines, presenting some of our strongest candidates for variability . In addition to these white dwarfs, we have searched other white dwarfs for evidence of metal line absorption. In the process we have found two new DAZs that reside within 15 pc and a double degenerate white dwarf system that will merge within 1 Gyr at a distance of 38 pc.