model, TZ Per by a 18,000°K model modified by an empirically determined disk contribution, and SS Cyg by a 34,000°K model. The spectrum of WZ Sge following its December 1978 outburst is fit by a series of successively cooler white dwarf atmospheres, starting at 28,000°K on 1979 Jan 1 and decreasing to 14,000°K on 1987 July 5. Other dwarf novae, including SU UMa, EX Hya, and Z Cam, did not show absorption at Lyα at minimum.

RX And, WZ Sge, and TZ Per also show strong absorption at 1400Å. If the observed far ultraviolet spectrum and the temperatures derived from the Lyα fitting are assumed to correspond to the white dwarf component, the 1400Å feature could be Si IV in RX And, but both WZ Sge and TZ Per would be too cool for Si IV. This raises questions about a photospheric origin for any of these features.

63.12

An Atlas of the Lyman-α Region for a Grid of Dwarf Nova Accretion Disk Models

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We use the accretion disk modeling code TLUSDISK and spectrum synthesis tools to compute a grid of spectra between 900 and 1500Å for accretion disks of cataclysmic variables in quiescence. The disk models and spectra are calculated in LTE. A contribution from the white dwarf is included, for a variety of white dwarf effective temperatures. The occultation of part of the inner disk by the white dwarf is also taken into account. The contribution of a boundary layer, assumed to be optically thin and emitting primarily at x-ray temperatures, is neglected.

The mass and radius of the accreting white dwarf are varied. The accretion rate, assumed to be steady, is chosen to reproduce the estimated luminosities of quiescent dwarf novae. The emergent spectra are presented for a variety of inclination angles, to show the effect of Doppler broadening at a resolution similar to that of the Hopkins Ultraviolet Telescope and somewhat better than that of low-dispersion IUE spectra. Comparisons of the Lyman-α region with some IUE spectra of dwarf novae in quiescence are attempted.

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63.15

Spiral Shock Effects on Disk Emission Lines

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Binary companions will induce spiral shocks in disks around various central objects, such as white dwarfs in cataclysmic variables, Be stars, and conceivably supermassive black holes in active galactic nuclei. We employ analytic models for self-similar spiral shocks in accretion flows and couple them with shear broadening and instrumental responses to estimate these effects in optically thin lines. Even weak shocks can have significant effects upon the emission lines expected from such disks similar to those sometimes observed. For an even number of shocks, the separations and heights of the two-horned lines will vary with binary phase, while for an odd number of shocks red/blue asymmetries appear, with the red and blue components alternating in brightness. Because these spiral shocks could possibly play the dominant role in angular momentum transport within disks, while substantial viscosity would smear out these internal shocks, this line shape diagnostic can have important implications for fundamental accretion disk theory.

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