The origin of helium-rich subdwarf O stars

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The origin of helium-rich subdwarf O stars (He-sdO) is still a mystery. High-resolution spectra of more than 30 He-sdOs were taken as a by-product of the Supernova Ia Progenitor SurveY (SPY; Napiwotzki et al. 2003, The Messenger 112, 25). Accurate radial velocity measurements allowed us to check for the presence of binary companions and estimate the kinematic properties of these stars. Temperature, gravity and hydrogen abundances were determined and the stars placed in the Hertzsprung-Russell diagram. I will use these results for a discussion of the evolutionary status of He-sdOs.