

**Eta Carinae and Homunculus:**  
 10 to 30  $M_{\odot}$  ejected in 1840s and 1890s  
 N, He overabundant, C, O 1/80th solar.  
 Homunculus(outer)

inner skin ionized metals 760K  
 (Fe II, Cr II, Ni II, Sr II, V II, Sc II)  
 outer shell: molecules @60K  
 CH, OH, CH<sup>+</sup>, NH, HCl  
 No CO detected

H<sub>2</sub> ~1000 abs lines 1300-1700A

Little Homunculus (inner)

T=6400K -> 5000K (spect min)

5.5 year period with 3 month min Jan-Mar 2009

