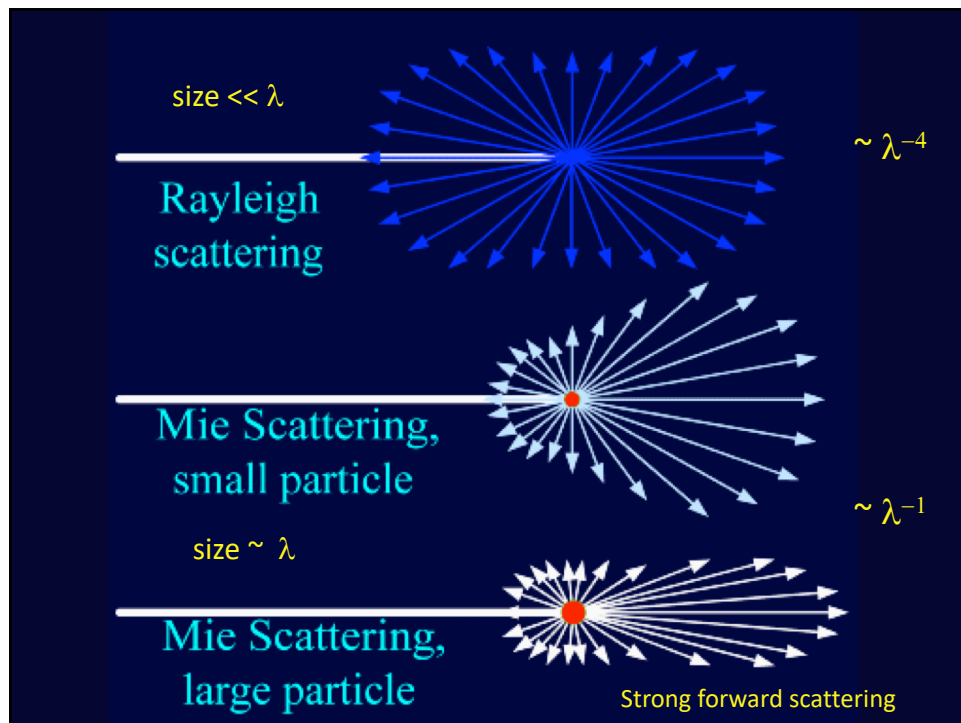
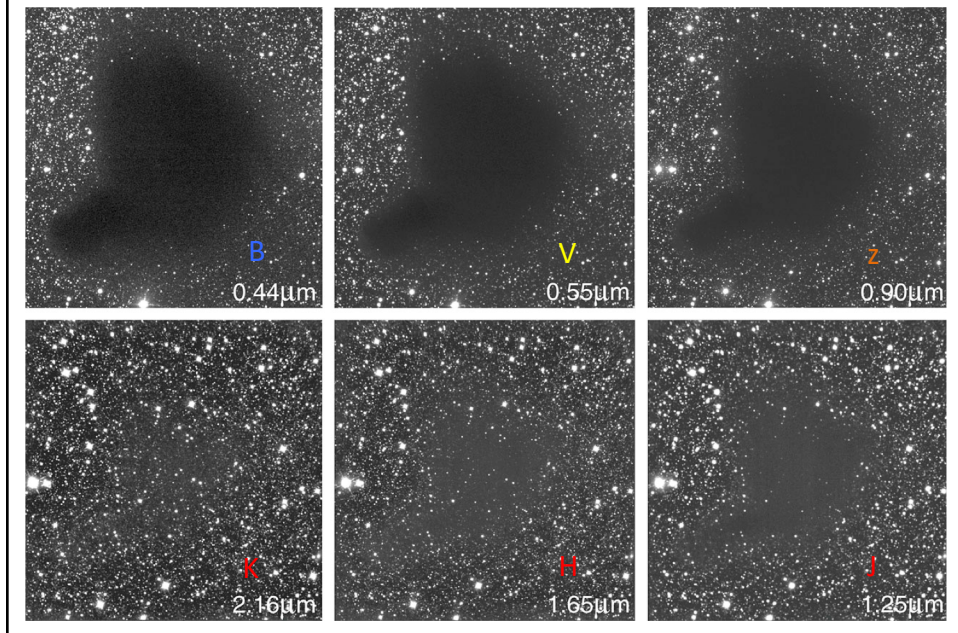
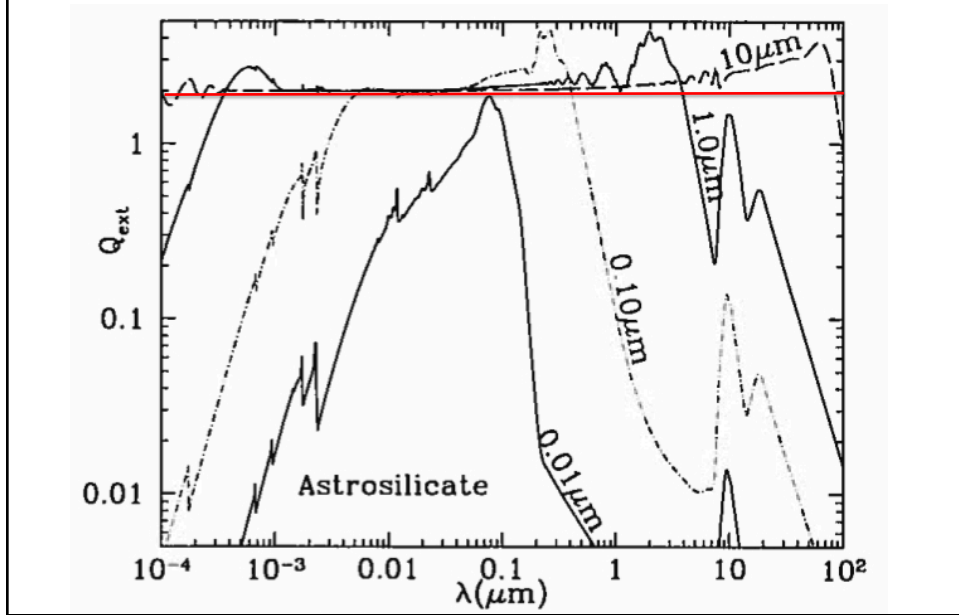


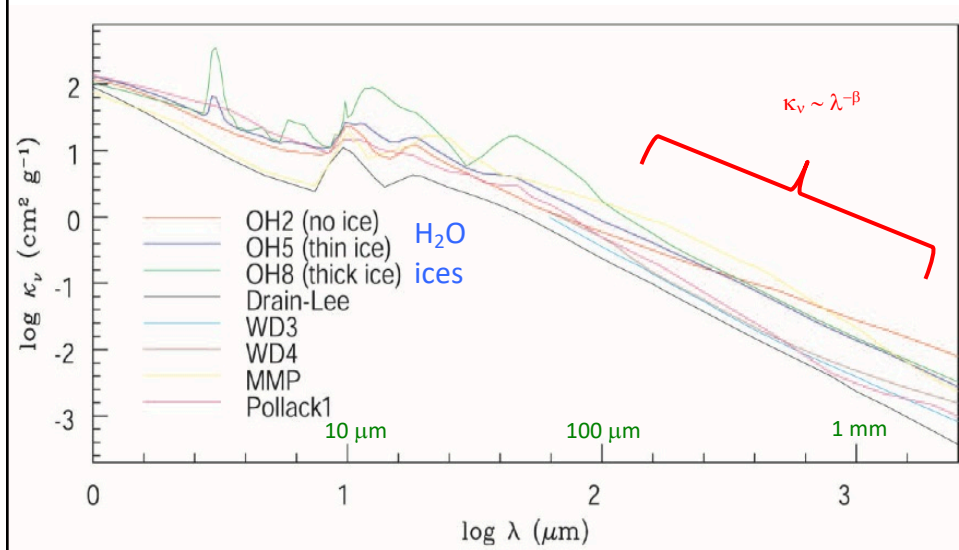
## Dust Extinction(Absorption+Scattering)



### Examples of $Q_{\text{ext}}$ for different size grains



### Dust Opacity – Far-IR/(sub)millimeter



Shirley et al. 2005