Silicates and PAHs in AGNs

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Dust is an important component of Active Galactic Nuclei (AGNs). The dusty medium surrounding the accreting black hole in AGNs is commonly referred to as the "dusty torus". Its structure and physical properties play a critical role in the AGN unification theory, which is closely related to the formation and evolution of AGNs. Our understanding of the dust in AGNs has been rapidly progressing in the past few years mainly due to the launch of the *Spitzer* Space Telescope. In the mid-infrared range (5-40µm) where the *Spitzer* Space Telescope probes, the AGN spectra are dominated by the dust features such as the silicate emission/absorption, and polycyclic aromatic hydrocarbon (PAH) features. In this talk I will review these progresses, focusing on the silicate and PAH emissions of AGNs, and what they can tell on the physical nature of AGNs.

Keywords: AGNs; galaxies; silicate; dust; PAH