

# THE SPECTRAL EVOLUTION OF ELLIPTICAL GALAXIES IN FIR AND BEYOND

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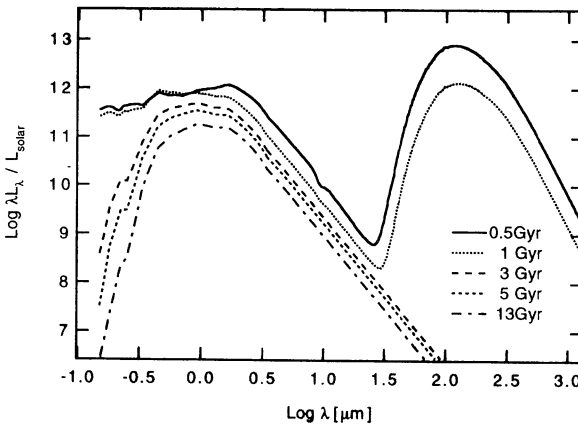
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At the beginning, elliptical galaxies would have passed very luminous phase in the FIR, somewhat like nearby starburst galaxies and/or ultra luminous IRAS galaxies. We introduce dust into an evolutionary scheme of galactic chemical evolution by following the formalism given by Wang (1991). The evolution of dust extinction in UV-optical and re-emission at the FIR is calculated with a help of stellar population synthesis code developed by Arimoto & Yoshii (1986). Under the assumptions of spherical geometry and uniform mixing of dust and stars, we have solved the equations of the radiative transfer. Figure 1 gives spectral evolution of an elliptical galaxy with a mass of  $10^{12} M_{\odot}$ . As expected, the forming massive elliptical galaxies should be most luminous in the FIR wavelengths even if a gas loss due to a galactic wind is taken into account.



**Figure 1.** The spectral evolution of model elliptical galaxy with dust absorption and re-radiation. The epoch of galactic wind is assumed to be 1 Gyr.