

## THE PROBLEM OF THE UV INTERSTELLAR ABSORPTION BAND AT 2200Å

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The ultraviolet interstellar extinction curve from 2740Å to 1350Å has been obtained using data from the S2/68 satellite experiment. The extinction increases into the ultraviolet and shows a pronounced peak at 2200Å. This is interpreted as a general scattering continuum with a strong absorption feature superposed on it at 2200Å. The profile of the feature appears to be symmetrical and has a half-width of 360Å. There is a strong correlation between the strength of the feature and the scattering part of the curve in both the ultraviolet and the visible. On a broad scale the shape of the extinction curve is constant showing no variation with distance from the sun, direction around the galaxy, and height above the galactic plane. A few stars showing large variations in the strength of the 2200Å absorption feature have been found arising presumably from local rather than general variations. The number of absorbers needed to produce the feature implies a high interstellar space density and therefore a common material. Carbon in the form of small graphite particles does have a peak near 2200Å but all the carbon then has to be in that form. A molecular origin is also not impossible. However serious difficulties are encountered in explaining the feature in the anomalous stars and the precise origin of the 2200Å absorption feature must still be regarded as open.