

N55a **Dust around V348 Sgr; A Hypothesis for Graphite Dust Formation**

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Until now, the following two hypotheses have been discussed.

(1) Amorphous carbon (AC) and hydrogenated amorphous carbon (HAC) dust particles are formed around evolved carbon-rich stars, because the peaks at 230-250 nm of these objects are well matched to the peaks of the AC and HAC synthesized in laboratory.

(2) Small graphite particles are a component of interstellar dust, because by calculation such particles can cause the interstellar 220 nm bump. Since the 220 nm peak is not observed around carbon-rich aged stars, it is concluded that graphite particles are not formed around evolved stars.

We have presented a carbonaceous material, dark-QCC, as an interstellar dust analogue which shows a 220 nm absorption peak. In this report, we will show another type of QCC, which shows a 250 nm absorption peak. By observation with high resolution electron microscope, the material is a type of graphite material with bent layers. The layers are bent on a scale of about 30 nm. The 250 nm peak of the new type of QCC is very similar to the sharp 250 nm extinction bump of V348 Sgr, although the width of the peak is a little broader than that of the object. Our result implies that (1) the peak wavelength of small graphite particles would locate at 250 nm; and (2) small graphite particles can be formed around some evolved stars instead of AC or HAC particles.