

The Principal Differences between carbon and graphite:

- **Carbon** – Made from carbon powder. Formed in a furnace at about 900°C. This results in a harder, less crystalline (amorphous) structure. It is dark in appearance and is harder than graphite.
- **Graphite** – Made from carbon powder. Formed in a furnace at 2500°C or higher. This results in a more crystalline structure. It is silver/gray in appearance and you can write with it.

Ladd graphite is spectroscopically pure with < 2 ppm impurities. The largest percentage of this very low level of impurities is usually silicon.

Tips for Evaporation

- If graphite and carbon rods (or points) are the exact same dimensions, it will take a higher current to evaporate graphite because of its crystalline structure.
- Graphite film is extremely stable and produces an extremely even film thickness.
- Graphite film is recommended for TEM / SEM applications.
- When evaporating either carbon or graphite, be sure to use blanks that are the same material as your rods.