To be motivated by limitations of current carbon media for chromatographic uses in spite of unique properties of carbon media including chromatographic selectivity and stability.

To coat carbon on monodisperse, spherical microparticles (silica and alumina) with high surface area (≥ 200 m²/g) by chemical vapor deposition (CVD) using organic vapor.

Organic vapor is supplied over microparticles at elevated temperature (e.g. 700 °C) for a given time under high purity nitrogen (99.99 % purity) flow.

MAJOR OBSERVATIONS

- Carbon deposition was achieved on both silica and alumina and their porous and spherical shape of microparticles was maintained.
- The prepared carbon phases showed usefulness for chromatography including the unique properties like other carbon phases.