



microwave plasma chemical synthesis

By a chemical reaction between the gas molecules so that a solid is deposited into a substrate process is called chemical vapor deposition (CVD). MWPCVD means can be formed by microwave plasma chemical reaction between the MWP, the molecules to form a solid and deposited.

Diamond is a very valuable material, synthetic difficult, generally carried out at high temperature and pressure, at low temperature and pressure using microwave reinforced synthetic diamond, obviously of great significance. Many researchers with H_2 / CH_4 as raw material, the MWPCVD synthetic diamond has got some interesting results, MWPCVD also good preparation for the performance of P-SiC, Co and BN. MWP can be used to process a variety of solid tables, a table and modified.

Electron cyclotron resonance (ECR) plasma with a high ionization and molecular dissociation rates, high anisotropy, low ion energy projects, etc. γ can be independently controlled, so use the time in the etch rate as a table and ECR plasma etching, selective, directional, injury side having a higher overall index. MWP using the obtained experimental device, plus some auxiliary equipment, can be obtained stable ECR, used for SiO_2 , Si_3N_4 , etc. etched.

MWP table can also be used and modified polymer materials, improve table and physical and chemical properties of polymer materials, achieve a halogenated polymer materials list and induce graft polymer materials, such as tables. MWP use chemical vapor reaction and also for the conversion of methane to produce 'Oz. MWP pyrolysis can be made use of ultra-fine nano-powder, and shorten the reaction time. This method has been used to hydroxides, carbonates, chlorides, etc. for various oxide precursors nanopowders.