



Microwave Plasma

Microwave plasma (MWP) is coupled to the microwave energy to form a gas plasma. Chemistry is the study of microwave plasma chemical processes in which the plasma and its related applications. MWP are gas discharge, and usually there are some differences of microwave heating. To obtain MWP, the first gas should have charged particles, for the space charge polarization. Under normal temperature and pressure in the liquid and solid, it is easy to have a lot of charged particles exist, and in the gas of charged particles is difficult to have a lot of freedom.

So first of all to join some kind of charge "seed" (usually electronic) in order to form a MWP;

Next, the gas discharge requires a strong electric field strength, so the obtained plasma must be specially designed apparatus (usually cavity) in order to control the electric field intensity space and microwave energy is concentrated in a small volume. MWP laboratory atmospheric obtained generally in a non-local thermodynamic equilibrium, a higher electron temperature, while the gas temperature is relatively low.