

APPARATUS AND METHOD OF PRODUCING DIAMOND AND PERFORMING REAL TIME IN SITU ANALYSIS

An apparatus for producing diamond and performing real time in situ analysis, comprising: a housing, a reaction chamber, the reaction chamber being structurally connected to the housing, the reaction chamber comprising of an enclosed area adapted to house the growing of diamonds, a radiating means, the radiating means being mounted above the reaction chamber within the housing, the radiating means adapted to emit microwave into the reaction chamber to effect the growth of diamonds within the reaction chamber, a recording means mounted within the annual housing and above the reaction chamber, a dielectric cover being provided at the top of the reaction chamber and arranged in between the enclosed area and both of the radiating means and recording means and is adapted to allow the radiation wave from the radiating means to enter the reaction chamber and also to allow the recording means to record the growth of the diamonds within the reaction chamber.

Figure 3