United States Patent [19]

Yializis

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[54] **FLASH EVAPORATION OF MONOMER FLUIDS**

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Related U.S. Application Data

[63] Continuation of Ser. No. 877,175, Jun. 23, 1986, abandoned.

[51] **Int. Cl.**[5] **B05D 3/06**; C23C 16/00

[52] **U.S. Cl.** **427/44**; 219/273; 219/275; 427/54.1; 427/80; 427/81; 427/127; 427/248.1; 427/255.6; 427/421

[58] **Field of Search** 219/273, 275; 427/44, 427/54.1, 421, 255.6, 248.1, 80, 81, 127

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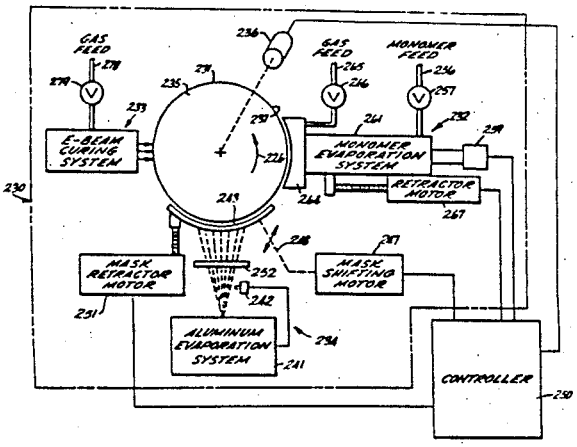
[57] **ABSTRACT**

A method for continuously supplying a uniform vapor of a polymerizable and/or cross-linkable material. A continuous liquid flow of said material is supplied at a temperature below both the decomposition temperature and the polymerization temperature of said material and atomized into a continuous flow of liquid droplets having a particle size from about 1 to about 50 microns. The droplets are continuously vaporized upon contact with a heated surface which is maintained at a temperature at or above the boiling point for said material, but below the temperature at which said droplets would undergo pyrolysis before vaporizing. The vapor may be deposited onto a substrate and subsequently polymerized or cross-linked.

23 Claims, 3 Drawing Sheets