United States Patent [19]

Yializis et al.

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[54] **HIGH SPEED PROCESS FOR COATING SUBSTRATES**

[75] Inventors: **Angelo Yializis; David G. Shaw,** both of Tucson, Ariz.; **Donald S. Strycker,** Glen Falls; **Mooyoung Ham,** Scotia, both of N.Y.

[73] Assignee: **Spectrum Control, Inc.,** Erie, Pa.

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Related U.S. Application Data

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[52] **U.S. Cl.** **427/44;** 427/81; 427/251; 427/255.5; 427/255.6; 427/295; 427/296; 427/383.7; 427/388.1; 427/389.9; 427/391; 427/393.5; 427/394; 427/395

[58] **Field of Search** 427/44, 81, 251, 255.5, 427/255.6, 295, 296, 383.7, 388.1, 389.9, 391, 393.5, 394, 395

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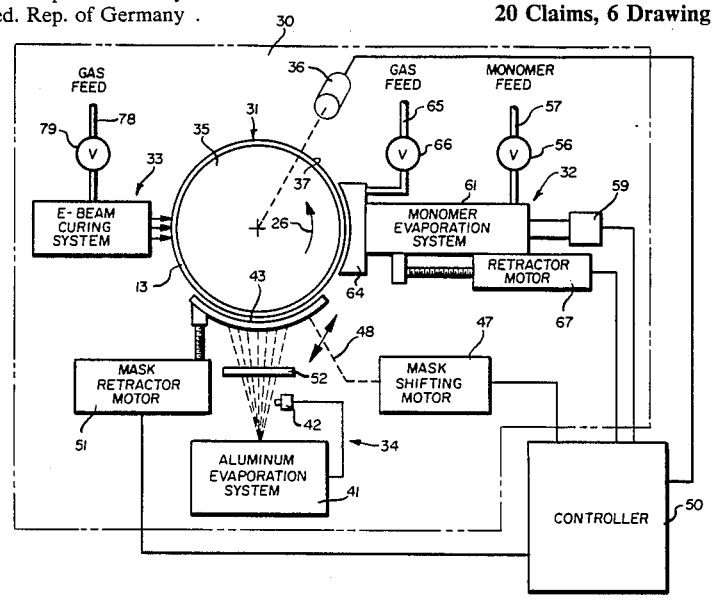
Primary Examiner—Bernard Pianalto

Attorney, Agent, or Firm—Marshall, O'Toole, Gerstein, Murray & Bicknell

[57] **ABSTRACT**

A high-speed process for coating substrates with thin organic coatings in a vacuum is disclosed and claimed. The process utilizes relatively low boiling, reactive monomers (e.g., polyacrylates) which are flash vaporized, condensed on the substrates and cured, in situ. The resultant cured films are pin-hole free and exhibit excellent adhesion. The process is capable of being run at very high coating and curing speeds, e.g., between 1 and 1000 cm/second.

20 Claims, 6 Drawing Sheets