

United States Patent [19]

Gleim et al.

[11] Patent Number: **4,524,121**

[45] Date of Patent: **Jun. 18, 1985**

[54] **POSITIVE PHOTORESISTS CONTAINING
PREFORMED POLYGLUTARIMIDE
POLYMER**

[75] Inventors: **Robert D. Gleim, Newtown; Mark P.
de Grandpre, Ambler, both of Pa.**

[73] Assignee: **Rohm and Haas Company,
Philadelphia, Pa.**

[21] Appl. No.: **553,221**

[22] Filed: **Nov. 21, 1983**

[51] Int. Cl.³ **G03C 1/54; G03C 1/68;
G03C 5/00**

[52] U.S. Cl. **430/176; 430/156;
430/192; 430/270; 430/313; 430/326**

[58] Field of Search **430/192, 270, 156, 326,
430/313, 176**

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,964,908 6/1976 Bargon et al. 430/296

4,079,041 3/1978 Baumann et al. 430/270 X
4,121,936 10/1978 Matsuda et al. 430/270
4,246,374 1/1981 Kopchik 525/80 X
4,254,232 3/1981 Mueller 525/96 X
4,379,874 4/1983 Stoy 525/94 X

Primary Examiner—John E. Kittle

Assistant Examiner—Mukund J. Shah

Attorney, Agent, or Firm—Marc S. Adler

[57] **ABSTRACT**

This invention relates to a positive photoresist system possessing a high degree of thermal stability. The photoresist system contains a preformed polyglutarimide polymer dissolved in a non-reacting solvent. The positive resist is capable of achieving high resolution images by exposure to a wide range of wavelengths and development using an aqueous base developer. The photoresist system is also suitable for use as a planarizing layer in a multiple layer system.

30 Claims, No Drawings