United States Patent [19]
Freeman

[11] Patent Number: 4,902,787
[45] Date of Patent: Feb. 20, 1990

[54] METHOD FOR PRODUCING LIGHTFAST DISPERSE DYESTUFFS CONTAINING A BUILD-IN PHOTOSTABILIZER [MOLECULE] COMPOUND

[75] Inventor: **Harold S. Freeman**, Raleigh, N.C.

[73] Assignee: **North Carolina State University**, Raleigh, N.C.

[21] Appl. No.: **184,382**

[22] Filed: **Apr. 21, 1988**

[51] **Int. Cl.**[4] **D06P 1/16**; D06P 1/18; D06P 1/17; D06P 1/20

[52] **U.S. Cl.** **534/800**; 534/799; 534/851; 546/204; 546/223; 548/260; 564/87; 564/88; 564/415; 564/443; 552/246; 552/247

[58] **Field of Search** 534/851, 799, 800; 564/87, 88, 415, 443; 548/260; 546/204, 223; 260/377

[56] **References Cited**

U.S. PATENT DOCUMENTS

3,998,136 8/1968 Groebke et al. .... 534/851 X
4,313,872 2/1982 Heinrich et al. .... 534/851 X

Primary Examiner—Floyd D. Higel
Attorney, Agent, or Firm—Bell, Seltzer, Park & Gibson

[57] ABSTRACT

A method of producing a UV lightfast disperse dyestuff comprising selecting a disperse dyestuff having predetermined chromophoric groups, selecting a photostabilizer compound, designing a hybrid disperse dye molecular structure which contains the chromophoric groups of the selected disperse dyestuff and also contains the molecular structural features of the selected photostabilizer compound, and synthesizing the thus designed hybrid disperse dyestuff molecule. Such a method produces a hybrid dye molecule which is a UV lightfast analog of a disperse dyestuff having predetermined chromophoric groups, said hybrid dye molecule containing in its molecular structure the chromophoric groups of the selected disperse dyestuff and also containing the molecular structural features of a photostabilizer compound.

17 Claims, No Drawings