US005128457A

United States Patent [19]

Albarella et al.

[11] Patent Number: 5,128,457

[45] Date of Patent: Jul. 7, 1992

[54] **CHROMOGENIC THIOL INDICATORS BASED ON AN ISOBENZOTHIAZOLONE RING SYSTEM**

[75] Inventors: **James P. Albarella; David L. Garling; Robert P. Hatch,** all of Elkhart, Ind.

[73] Assignee: **Miles Inc.,** Elkhart, Ind.

[21] Appl. No.: **802,527**

[22] Filed: **Dec. 5, 1991**

Related U.S. Application Data

[60] Division of Ser. No. 546,703, Jul. 2, 1990, which is a continuation of Ser. No. 214,426, Jul. 1, 1988, abandoned.

[51] **Int. Cl.**[5] **C09B 29/039;** C09B 29/10; C09B 29/44

[52] **U.S. Cl.** **534/768;** 534/775; 534/778; 534/780; 534/788

[58] **Field of Search** 534/778, 780, 788, 768, 534/775

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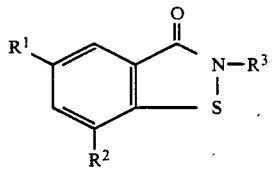
Primary Examiner—Mary C. Lee
Assistant Examiner—Fiona T. Powers
Attorney, Agent, or Firm—Roger N. Coe

[57] **ABSTRACT**

Newly synthesized chromogenic thiol-indicating benzoisthiazolone derivatives having the structure:



where R^1, R^2 and R^3 are as defined in the specification, are useful in the detection of thiols, particularly in an aqueous system. This process comprises contacting the aqueous system with a chromogenic thiol-indicating benzoisothiazolone derivative as described herein. Chromophoric changes due to thiol-mediated reduction of the benzothiazolone derivative then occur. Such changes can be in a solution or on an indicator surface in contact or having been in contact with the aqueous system. The chromophoric changes, due to a bathochromic shift in characteristics light absorption upon reduction of the benzoisothiazolone derivative, are proportional to the amount or rate of appearance of thiols in the aqueous system.

10 Claims, No Drawings