



US005136886A

United States Patent [19]

[11] Patent Number: **5,136,886**

Neigoff et al.

[45] Date of Patent: **Aug. 11, 1992**

[54] ACCELERATED WEATHERING AND LIGHTFASTNESS TESTING CHAMBER

2193329 2/1988 United Kingdom .

[75] Inventors: Eugene N. Neigoff, Northbrook; Gene Comerford, Zion; James V. Huber, Oak Park; Victor H. Vlahos, Lake Zurich, all of Ill.

OTHER PUBLICATIONS

Brochure entitled SunSystem by Atlas Electric Devices Company of Chicago, Ill.; 4 pages; copyright 2-1988.

[73] Assignee: Atlas Electric Devices Co., Chicago, Ill.

Primary Examiner—Tom Noland
Attorney, Agent, or Firm—Gerstman & Ellis, Ltd.

[21] Appl. No.: 609,723

[57] ABSTRACT

[22] Filed: Nov. 6, 1990

[51] Int. Cl.⁵ G01N 17/00

[52] U.S. Cl. 73/865.6; 356/246

[58] Field of Search 73/856.6; 374/57; 356/246

A lightfastness testing chamber comprises an enclosure for samples being tested and at least one, and preferably a plurality of, lamps for irradiating samples in the enclosure. A monitor of the light intensity from each lamp present is provided. By this invention the monitor may comprise a light transmission rod, and preferably one such rod for each of the lamps, having one end positioned adjacent the lamp and another end in communication with light intensity measuring apparatus positioned more remotely from the lamp than the one end. The light transmission rod is preferably positioned on a side of the lamp that is substantially opposed to portions of the lamp that directly irradiate samples in the enclosure. Also, the samples may be moved by an elevatable platform or the like toward and away from the irradiating lamp or lamps to vary as desired the intensity of irradiation applied to the samples. Both curved and flat reflecting mirrors may be provided above the lamps to provide a desired uniformity of irradiation.

[56] References Cited

U.S. PATENT DOCUMENTS

3,686,940	8/1972	Kockott	73/865.6 X
3,713,727	1/1973	Markosian et al.	126/451 X
3,797,918	3/1974	Kockott	73/865.6 X
4,760,748	8/1988	Katayanagi et al.	73/865.6
4,817,447	4/1989	Kashima et al.	73/865.6
4,843,893	7/1989	Huber et al.	73/865.6
4,874,952	10/1989	Arnaud et al.	250/455.1
4,957,011	9/1990	Huber et al.	73/865.6

FOREIGN PATENT DOCUMENTS

24840	2/1983	Japan .
2480037	10/1989	Japan .

17 Claims, 5 Drawing Sheets

