



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁵ :

H01L 39/24

A1

(11) International Publication Number:

WO 92/10857

(43) International Publication Date:

25 June 1992 (25.06.92)

(21) International Application Number: PCT/US91/09047

(22) International Filing Date: 9 December 1991 (09.12.91)

(30) Priority data:
624,435

7 December 1990 (07.12.90) US

(71) Applicant: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US).

(72) Inventor: FACE, Dean, Willett ; 123D Presidential Drive, Greenville, DE 19807 (US).

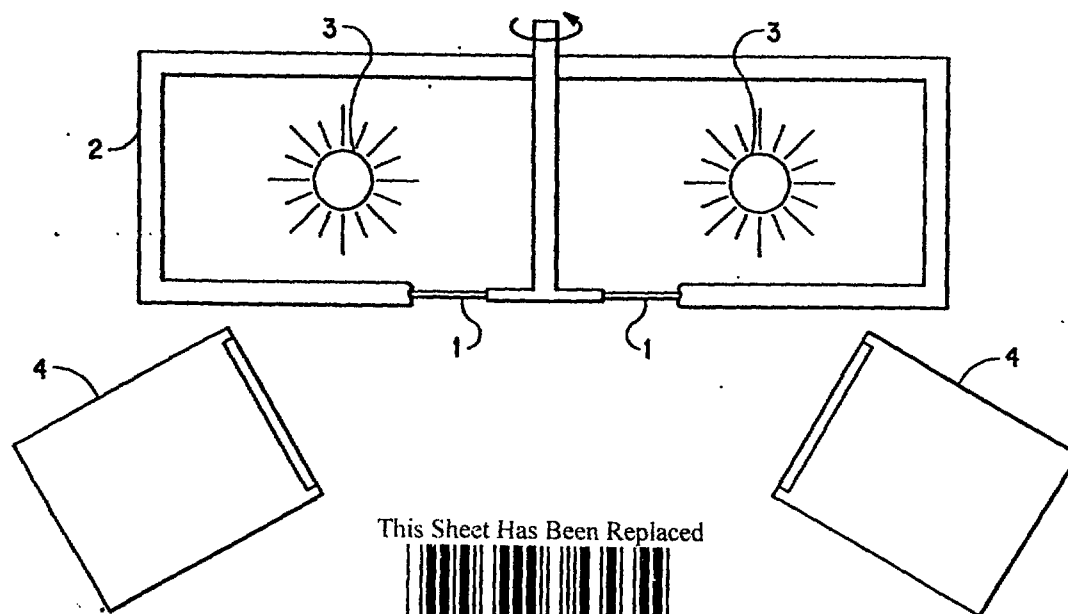
(74) Agents: PARRISH, John, A. et al.; E.I. du Pont de Nemours and Company, Legal/Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).

(81) Designated States: AT (European patent), AU, BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP, KR, LU (European patent), MC (European patent), NL (European patent), NO, SE (European patent).

Published

*With international search report.**Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.*

(54) Title: PROCESS FOR DEPOSITING HIGH TEMPERATURE SUPERCONDUCTING OXIDE THIN FILMS



This Sheet Has Been Replaced



(57) Abstract

An improved in-situ process is provided for depositing on a substrate a crystalline thin film of a compound requiring an elevated growth temperature, i.e., a growth temperature of about 100 °C to about 900 °C. The improvement comprises exposing the back surface of the substrate, i.e., the surface of the substrate opposite the surface on which the thin film is deposited, to radiation from a radiant heat source, thereby heating the substrate to the desired growth temperature, and maintaining the radiation and thereby the desired growth temperature during the deposition of the thin film.