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(21) International Application Number: PCT/US93/02662 (22) International Filing Date: 29 July 1992 (29.07.92) (30) Priority data: 07/745,407 15 August 1991 (15.08.91) US (71) Applicant: BASF CORPORATION [US/US]; 100 Cherry Hill, Parsippany, NJ 07054 (US). (72) Inventors: BRADFORD, Christopher, J. ; 4808 Washtenaw, Apt. #47, Ann Arbor, MI 48108 (US). TICU, Adriana ; 30355 Bretton, Livonia, MI 48152 (US). (74) Agent: MARSHALL, Paul, L.; BASF Corporation, 26701 Telegraph Road, Southfield, MI 48086-5009 (US).		(81) Designated States: BR, CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments</i> (88) Date of publication of the international search report: 28 October 1993 (28.10.93)
(54) Title: PROCESS FOR PRODUCING A CROSSLINKED POLYMER USING A β -DICARBONYL COMPOUND (57) Abstract In a process for crosslinking a polymer, a β-dicarbonyl functionality is present as a reactive diluent and/or as a reactive solvent and/or on a crosslinking entity. The β-difunctional compound reacts with formaldehyde which is either released during the crosslinking reaction (or otherwise present) whereby less formaldehyde is released than would otherwise be released. The formaldehyde which reacts with the β-dicarbonyl compound is either incorporated into the crosslinked polymer network or released in the form of a reaction product which is not as harmful to the environment as the unreacted formaldehyde. The process enables the reduction of formaldehyde release during crosslinking to levels otherwise unobtainable. Furthermore, the process enables a reduction in the amount of organic solvent utilized.		

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US93/02662

A. CLASSIFICATION OF SUBJECT MATTER

IPC(5) : Please See Extra Sheet.

US CL : 525/163, 132, 454, 456, 110

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 525/163, 132, 454, 456, 110

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 4,987,186 (AKIYAMA ET AL.) 22 JANUARY 1991 see Abstract; column 2, lines 37-45.	1-18
X	US, A, 4,172,822 (PATZSCHKE) 30 OCTOBER 1979 see claims 1-3; column 4; column 6.	1-18

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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IPC (5):

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