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HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
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DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU,
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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii))

Published:

- with international search report (Art. 21(3))

[Continued on next page]

- (54) Title: POROUS POLYBENZIMIDAZOLE RESIN AND METHOD OF MAKING SAME

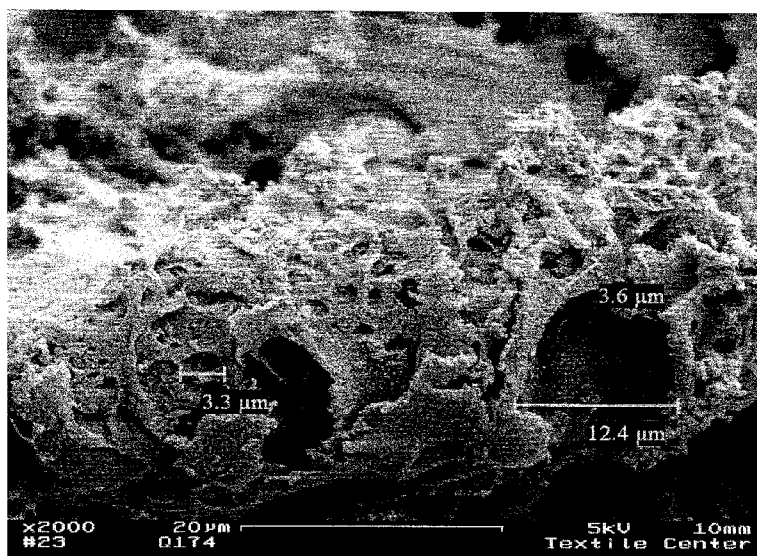


Figure 1

- (57) Abstract: A porous polybenzimidazole (PBI) particulate resin is disclosed. This resin is easily dissolved at ambient temperatures and pressures. The resin is made by: dissolving a virgin PBI resin in a highly polar solvent; precipitating the dissolved PBI in a bath; and drying the precipitated PBI, the dried precipitated PBI being porous. The porous PBI resin may be dissolved by: mixing a porous PBI resin with a highly polar solvent at ambient temperatures and pressures to form a solution.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

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29 November 2012

A. CLASSIFICATION OF SUBJECT MATTER*C08L 79/04(2006.01)i, C08G 73/18(2006.01)i, C08J 9/28(2006.01)i*

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)

C08L 79/04; C08J 9/28; C08J 9/228; C08J 9/36; C08J 9/232; C08G 2/30; B01J 39/18; B01J 31/06

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: polybenzimidazole, PBI, porous, particle, particulate, density

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 04628067A A (CHEN, SR.; PAUL N. et al.) 09 December 1986 See abstract, columns 3 and 6, and Claim 1	1-10
X	US 05169871A A (HUGHES; O. RICHARD et al.) 08 December 1992 See abstract, columns 3 and 4, examples I to III, and claims	11-23
A	US 04800188A A (SHEPHERD; JAMES P.) 24 January 1989 See whole document	1-23
A	US 05223550A A (HUGHES; O. RICHARD et al.) 29 June 1993 See whole document	1-23
A	US 04828699A A (SOEHNGEN; JOHN W.) 09 May 1989 See whole document	1-23



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

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"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

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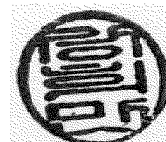
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 04828699A A	09.05.1989	None	