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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



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(54) Title: MEDIA WITH GERMICIDAL PROPERTIES

(57) Abstract: Filtration media having germicidal for use in filtering particles and deactivating, removing and/or destroying microorganisms from a feed liquid passing through the media. The filtration media includes an effective amount of at least one germicidal agent associated to monomers polymerized and chemically grafted and covalently bonded to the surface of the media. The germicidal filter media is prepared by contacting the media with a grafting solution comprising one or more monomers, a catalyst, a surface agent, a curing agent, at least one graft initiator, and at least one germicide and subsequently curing the media at an elevated temperature to chemically graft the polymerizable monomers onto a surface of the media and associate at least one germicide thereto. Filter media suitable for use in the present invention include ceramic spheroids, hollow glass spheres, polymeric type media, thermoset coated glass spheres, and crystalline microporous materials, such as zeolites. The germicidal filter media is effective for deactivating, destroying and/or removing from a feed liquid, such as water, escherichia coli, salmonella choleraesuis, staphylococcus, aspergillus, klebsiella, listeria, clostridium, rotavirus, cysts and other microorganisms. Moreover, the filter media can be used repeatedly without a significant decrease in its germicidal effectiveness.

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C02F 1/50; B01D 24/00

US CL : 210/764, 502, 504; 252/175

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. : 210/764, 502, 504; 252/175

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)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -- Y	US 4,966,872 A (HOROWITZ et al) 30 October 1990, entire document.	1,3-12,15-18,20-26,28,29 ----- 2,19,27
Y	US 4,725,390 A (LAIRD et al) 16 February 1988, entire document.	2,19,27
A	US 4,111,713 A (BECK) 05 September 1978, entire document.	2,19,27

Further documents are listed in the continuation of Box C.

See patent family annex.

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"P"

document published prior to the international filing date but later than the priority date claimed

"&"

document member of the same patent family

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