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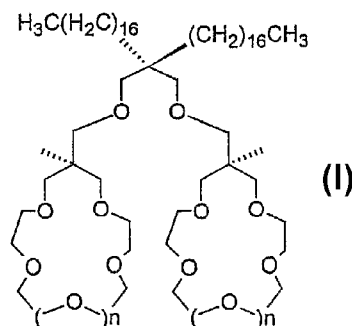
- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

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(54) Title: A PROCESS FOR SYNTHESIZING IONOPHORES AND MOLECULES OBTAINED THEREFROM



(57) **Abstract:** Novel lipophilic metal cation ionophore comprising two cyclic polyether substituents having the following molecular formula is disclosed. wherein $n = 0, 1, 2$ which along with $2n$ number of methylene (CH_2) units, of each of the cyclic polyether substituent is varied to derive an ionophore having specific affinity to any one of lithium (Li^+), sodium (Na^+) and potassium (K^+) cations. Apart from intermediate compounds, a process is also disclosed for synthesizing the ionophore from pentaerythritol by first converting it to a protected diol with 2 tosylate leaving groups, converting it to a lipophilic protected diol with Grignard reaction before deprotecting the diol. A diol silyl ether is synthesized into cyclic polyether with a tosylate leaving group which is then reacted with the deprotected diol to give the desired lipophilic metal cation ionophore.

A. CLASSIFICATION OF SUBJECT MATTER*C07C 13/00(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)

IPC:C07C

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)

e-KOMPASS(KIPO-internal)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- A	US 4,978,732 A (ROLF WEHRMANN et al.) 18 December 1990 See column 5, line 45 - line 56.	4 --- 1-3, 5-17
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A	US 5,136,033 A (DIVAKARAN MASILAMANI et al.) 04 August 1992 See the whole document.	1-17



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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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

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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