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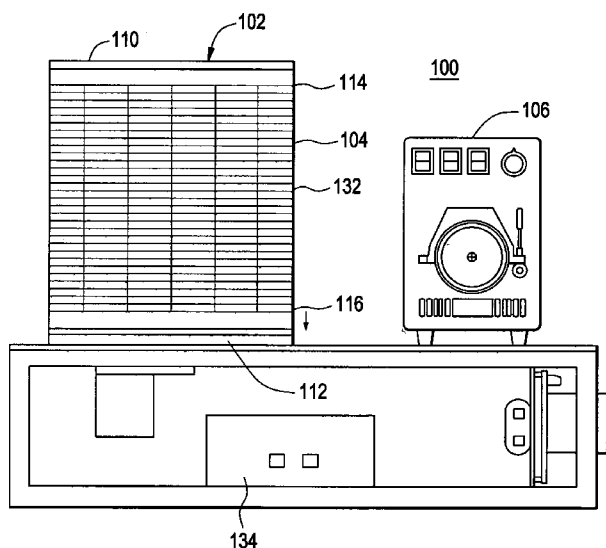
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[Continued on next page]

(54) Title: METHOD FOR A CONTINUOUS RAPID THERMO CYCLE SYSTEM



(57) Abstract: An efficient, high speed production scale synthesis method for high molecular weight organic substances such as DNA by methods which require multiple temperature environments. In a Polymerase Chain Reaction operation, a substantially homogeneous liquid of the reactants is conveyed by tubing through a minimum of two temperature zones in the presence of a sufficient amount of a surface absorbing polymer to both condition the tubing and protect the catalyzing enzyme so as to increase production, efficiency and minimize down time needed to regenerate the system for further use. In particular, a block copolymer of ethylene oxide and propylene oxide is used.

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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))*
— *of inventorship (Rule 4.17(iv))*

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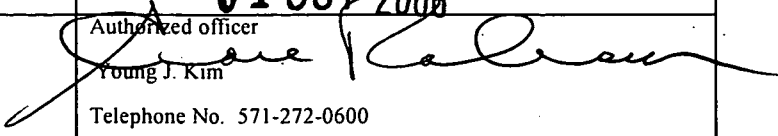
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International application No.

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A. CLASSIFICATION OF SUBJECT MATTER IPC: C12Q 1/68(2006.01);C12P 19/34(2006.01) USPC: 435/6,91.1,91.2 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. : 435/6, 91.1, 91.2 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) Please See Continuation Sheet		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2005/075683 A1 (POSTECH FOUNDATION) 18 August 2005 (18.08.2005), see entire document.	1-9
Y	US 6,709,692 B2 (SUDOR, J) 23 March 2004 (23.03.2004), see entire document.	1-9
☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.		
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"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
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"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search 26 August 2008 (26.08.2008)		Date of mailing of the international search report 01 OCT 2008
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer  Young J. Kim Telephone No. 571-272-0600

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Continuation of B. FIELDS SEARCHED Item 3:
Patent Databases (USPT, USPGP, EPO, JPO, DERWENT, IBM-TDB)

search terms: continuous polymerase chain reaction/PCR, polymeric, polymer tube.