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(54) Title: A QUANTUM CIRCUIT BASED SYSTEM CONFIGURED TO MODEL PHYSICAL OR CHEMICAL SYSTEMS

$$|\Psi[A]\rangle = \sum_{i_1, i_2, \dots, i_N} v_L^\dagger A_1^{i_1} A_2^{i_2} \dots A_N^{i_N} v_R |i_1, i_2, \dots, i_N\rangle, \tag{1}$$

FIGURE 1

(57) Abstract: There is provided a quantum circuit based system configured to model infinite-size systems, in which one or more quantum circuits are configured as an infinite tensor network representation of quantum states of effectively infinite physical or chemical systems.



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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED
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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)
 EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Further documents are listed in the continuation of Box C.

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Date of the actual completion of the international search 10 July 2020	Date of mailing of the international search report 20/07/2020
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Godzina, Przemysław

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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