US005248899A

United States Patent [19]

Haronian et al.

[11] Patent Number: 5,248,899

[45] Date of Patent: Sep. 28, 1993

[54] NEURAL NETWORK USING PHOTOELECTRIC SUBSTANCE

[76] Inventors: **Dan Haronian**, P.O. Box 1405, Efrat, Israel, 90962; **Aaron Lewis**, 18/14 Neveh Shaanan, Jerusalem, Israel, 93707

[21] Appl. No.: **832,912**

[22] Filed: **Feb. 7, 1992**

[51] **Int. Cl.**[5] **G06F 15/46**
[52] **U.S. Cl.** **307/201**; 395/25
[58] **Field of Search** 307/201; 395/25

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Primary Examiner—David R. Hudspeth
Attorney, Agent, or Firm—Jacobson, Price, Holman & Stern

[57] **ABSTRACT**

A neural network, and a method of storing information and retrieving it by such network. The network comprises neurons, synapses and switches, and when required also rectifying means. The network is based on a substance which undergoes a reversible change from stable state A to stable state B, and this substance can also be changed from state A to another state C, which change is also reversible, where each change provides a measurable electrical pulse. The change of state is brought about by means of illumination for a predetermined period of time at a certain wavelength, it being possible to convert a desired part of the substance from one state to the other.

21 Claims, 18 Drawing Sheets