Title (en)
NEURAL NETWORK COMPRISING SPINTRONIC RESONATORS

Title (de)
NEURONALES NETZ MIT SPINTRONISCHEN RESONATOREN

Title (fr)
RÉSEAU DE NEURONES COMPORTANT DES RÉSONATEURS SPINTRONIQUES

Publication
EP 3827377 A1 20210602 (FR)

Application
EP 19745593 A 20190725

Priority
• FR 1800805 A 20180726
• EP 2019070027 W 20190725

Abstract (en)
[origin: WO2020021004A1] The invention relates to a neural network (100) comprising: synaptic chains, each synaptic chain comprising synapses, each synapse being a spintronic resonator, the spintronic resonators being in series, and each spintronic resonator having an adjustable resonance frequency; and ordered layers of neurons (102), each neuron being a radiofrequency oscillator oscillating at its own frequency, a lower layer being connected to an upper layer by an interconnection (104) comprising an assembly of synaptic chains connected to rectifying circuits, each resonance frequency of the assembly of synaptic chains corresponding to the frequency of a radiofrequency oscillator of the lower layer.

IPC 8 full level
G06N 3/063 (2006.01); **G06N 3/04** (2006.01)

CPC (source: EP US)
G06N 3/04 (2013.01 - US); **G06N 3/049** (2013.01 - EP); **G06N 3/063** (2013.01 - US); **G06N 3/065** (2023.01 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2020021004 A1 20200130; CN 112567392 A 20210326; CN 112567392 B 20240322; EP 3827377 A1 20210602; FR 3084505 A1 20200131; FR 3084505 B1 20210910; US 2021201123 A1 20210701

DOCDB simple family (application)
EP 2019070027 W 20190725; CN 201980053372 A 20190725; EP 19745593 A 20190725; FR 1800805 A 20180726; US 201917263093 A 20190725