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(54) Title: ACTUATOR DEVICE, METHOD AND SYSTEM FOR LIMB REHABILITATION

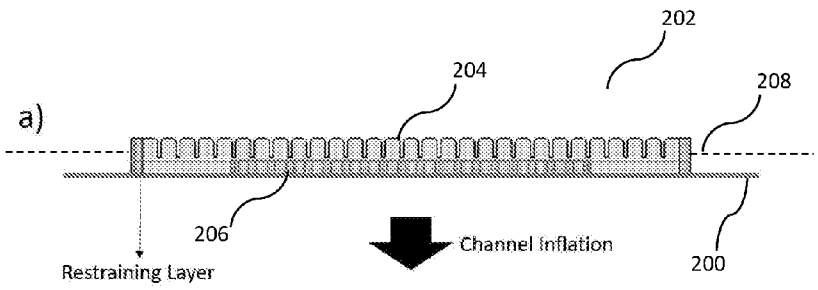

Figure 2

(57) Abstract: An actuator device, a method and a system for limb rehabilitation, and a pneumatic actuator element. The actuator device for limb rehabilitation comprises one or more pneumatic actuator elements; and means for coupling the pneumatic actuator elements to the limb at or near one or more joints of the limb; wherein each pneumatic actuator element comprises: an expandable main body having a longitudinal axis; one or more channel networks formed in the main body such that, in an acquiescent state of the pneumatic actuator element, a projected length of each channel network along the longitudinal axis is shorter than a total channel length of said each channel network.

WO 2015/191007 A1