Title (en)
SYSTEMS AND METHODS FOR PROVIDING AN ION BEAM

Title (de)
SYSTEME UND VERFAHREN ZUR BEREITSTELLUNG EINES IONENSTRAHLS

Title (fr)
SYSTÈMES ET PROCÉDÉS DE PRODUCTION D'UN FAISCEAU IONIQUE

Publication
EP 3634576 A1 20200415 (EN)

Application
EP 17928389 A 20171011

Priority
US 2017056121 W 20171011

Abstract (en)
[origin: WO2019074497A1] Systems for generating a proton beam may include an electromagnetic radiation beam directed onto an ion-generating target. A detector may be configured to measure the laser-target interaction, which a processor may use to produce feedback for adjusting the proton beam. To filter the energy of a pulsed ion beam and/or for provide pulsed ion radiation at desired times, a system may include an electromagnet and an automated switch. Proton beam systems may be used to treat patients with proton therapy by controlling relative movement between the proton beam and the patient, including the penetration depth of the proton beam. Such systems reduce the size, complexity, and cost of proton beam generation, while also improving their speed, precision, and configurability. When used in proton therapy, these systems enable shorter treatment times, higher patient throughput, more precise treatment of the desired areas, and less collateral damage to healthy tissue.

IPC 8 full level
A61N 5/10 (2006.01)

CPC (source: CN EP IL KR)
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