1. Record Nr. UNINA9910137239503321

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Titolo	Open questions on the mechanisms of neuromodulation with applied and endogenous electric fields / / topic editors: Shennan Aibel Weiss and Marom Bikson
Pubbl/distr/stampa	Frontiers Media SA, 2015 France : , : Frontiers Media SA, , 2015
ISBN	9782889193738
Descrizione fisica	1 online resource (73 pages) : digital, PDF file(s)
Collana	Frontiers Research Topics
Soggetti	Neurology Medicine Health & Biological Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Sommario/riassunto	Despite increased knowledge, and more sophisticated experimental and modelling approaches, fundamental questions remain about how electricity can interact with ongoing brain function in information processing or as a medical intervention. Specifically, what biophysical and network mechanisms allow for weak electric fields to strongly influence neuronal activity and function? How can strong and weak fields induce meaningful changes in CNS function? How do abnormal endogenous electric fields contribute to pathophysiology? Topics included in the review range from the role of field effects in cortical oscillations, transcranial electrical stimulation, deep brain stimulation, modelling of field effects, and the role of field effects in neurological diseases such as epilepsy, hemifacial spasm, trigeminal neuralgia, and multiple sclerosis. The format of each (<1000 word) mini-review will begin by posing a question, problem, or challenge. The author(s) will provide a brief review of the literature and introduce essential concepts. Data regarding the outstanding question is presented, analysed, and issues of contention discussed thoroughly. The author should offer the reader an answer to the posed question if possible,

and offer suggestions for future experiments to address outstanding issues.