USING ALTERNATING ELECTRIC FIELDS TO INCREASE CELL MEMBRANE PERMEABILITY

ABSTRACT

Certain substances (e.g., large molecules) that ordinarily cannot traverse the cell membrane of cells can be introduced into cells by applying an alternating electric field to the cell for a period of time, wherein the frequency of the alternating electric field is selected so that application of the alternating electric field increases permeability of the cell membrane. Once the permeability of the cell membrane has been increased, the substance is able to cross the cell membrane. This approach is particularly useful in the context of cancer cells (e.g., glioblastoma).

Fig. 1