

**Identifikační záznam:**

HÁJKOVÁ, Renata. *Sledování vlivu expozice elektromagnetickým polem na kolonii kvasinek [Monitoring the impact of exposure to electromagnetic fields in yeast colonies]*. Praha, 2011, rok vydání. 74s., 2. příl. Diplomová práce (Mgr.). Univerzita Karlova v Praze, 1. Lékařská fakulta, Fakulta elektrotechnická, Katedra elektromagnetického pole, ČVUT v Praze. Vedoucí závěrečné práce Vorlíček, Jaroslav, Ing.

**Abstract:**

Current development of mobile telecommunication device increases interest of public to the question of influence of electromagnetic field to the living organisms.

Results of this work contribute to better knowledge of interaction between electromagnetic field and cell structures.

Beginning of the thesis is review of morphology and physiology of the yeast cell that was used in this work as a tested organism. Second chapter describe the basic facts about electromagnetic field and wireless energy transfer.

Goal of the practical part of this master thesis is describe influence of electromagnetic field on population of yeast during their proliferation.

We constructed special box connected with wireless energy generator that was source of exactly defined electromagnetic field. Cells of *Saccharomyces cerevisiae* were diluted in fluid medium YPD and the proliferation of the culture was controlled in time. Proliferation was quantified by photometric method and the results were statistically interpreted.

**Keywords:**

electromagnetic field, *Saccharomyces cerevisiae*, influence of electromagnetic field to organism, wireless technics