

# Abstract

Goal of this master thesis is describe effect of ferrite nanopartickles FeSi and FeH on the thermal exposure of biological tissue phantom by microwave Thermootherapy.

Blank samples and the samples with increased concentration nanopartickles FeSi and FeH were prepared. Exposition was performed by open cavity resonator with 2, 45 GHz generator. Temperature profiles were taken by thermocamera Flir P25. Results of both types of samples were compared and were statistically interpreted.

Agar samples with nanopartickles FeSi and FeH show higher increase of temperature, than blank samples. The differences are not statistically significant.

Keywords: Microwave thermootherapy, nanopartickles