

STUDY OF SAR AND TEMPERATURE DISTRIBUTIONS IN HUMAN HEAD USING MOBILE PHONES

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Abstract

In this paper the thermal analysis has been performed focusing the attention on specific absorption rate distribution and temperature distribution in the human head. It is well known that some significant thermal damage can occur in sensitive tissues under conditions of partial body exposure to intense EM waves. The SAR distribution is calculated at two different frequencies and the temperature distribution, at three different power levels.

Keywords: biological effects of electromagnetic radiation, cell phone radiation, specific absorption rate, temperature rise.