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IN SITU RADIOFREQUENCY FIELD LEVEL ASSESSMENT IN TWO URBAN AREAS IN ROMANIA: OPEN QUESTIONS TO ELECTROMAGNETIC POLLUTION

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Abstract

Even if electromagnetic pollution (EP) is still a rarely approached subject, its magnitude in the last decades is great, mainly due to the massive proliferation of electromagnetic field (EMF) technologies. Present paper aims to analyze the environmental field level from various sources in the high frequency range of the spectrum, by applying procedures that allow accurate assessments. This approach constitutes a first step in approaching the complex phenomenon of EP and its impact on the biosphere. Spot measurements around various radiofrequency (RF) sources/antennas were conducted in two urban areas, to assess the order of magnitude of the EP. The results show that generally, in the population accessed areas, the RF field levels are much lower than the maximum admitted levels in the human's safety standards. However, this may not be the general rule, because there may be locations where superposition of a multiplicity of electromagnetic signals from the lower frequency part could increase EP consistently. Lack of specific EP environmental regulations disables the researcher to having a clear reference for establishing effective environmental management approaches for this type of pollutant, mainly because human protection standards are just thermally based and living organisms do not always obey the rules of cause and effect.

Key words: electromagnetic pollution, electrosmog, exposure assessment, radiofrequency

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