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**MATHEMATICAL ANALYSIS OF BIBLIOMETRICAL
INDICES OF PUBLISHED WORKS ON
NEUROPHYSIOLOCAL EFFECTS OF NON-IONIZED
RADIATION OF DIFFERENT KINDS
(MEDLINE-INTERNET)**

Abstract. Bibliometrical data on neurophysiological published works carried out with application of non-ionized radiation of different kinds (EMF, MW, MF and EF) are presented. Quantitative characteristics of published works of choose subdivisions during 35-year time interval (1966-2000) be considered. Dynamics of number of published works of these trends is analyzed. Conclusion about prospects of investigations of neurophysiological effects of non-ionizing radiation is done.

Introduction

Biological phenomena of non-ionizing radiation (NIR) of different kinds interested humanity for many centuries [15]. Development of modern society, particularity in XX century, led to extensive use of these physical factors of wide frequency and intensity range. Sources of NIR are radio communications, various radar systems, some technological processes at enterprises, transport, research instruments, wiring, home electric appliances, and etc. Technical progress promotes expansion of investigations of influence of NIR on organism [15].

The nervous system is of great significance in reactions of organism to NIR. Neurophysiological alterations made by these factors were considered in series of our works. Our pioneering investigations revealed predominant role of direct action of NIR of different kinds on brain structures, personally on the cortex, in origin of reactions of organism [1-3]. Later we considered evoked and background activity of single neurons [4-6] and pattern of pulse flows of neuronal populations at action of NIR [6, 7, 10-13].

Towards middle of the seventies years of XX century probably more 5 thousand published works on biological effects of NIR were accumulated [15]. 20 years later the number of such published works was believed to reach 10 thousand [6, 16]. In 2000 their number exceeded 21 thousand [8, 14].

Bibliometrical analysis of published works on biological action of NIR was not carried out up to now. Therefore we began bibliometrical

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