# http://www.starbuilders.org/fft/articles/biophoton.html

(This book is only available in German language and not yet published in English)

### Short description

Marco Bischof's widely acclaimed book has already sold some 30,000 German-language copies (9th printing) since its publication in March 1995, and the success is continuing. It is the first comprehensive book on the world market for the general and scientific public on one of the hottest fields of frontier science which is about to lead to major conceptual breakthroughs and many useful applications in biophysics, biomedical science, biology, biotechnology, environmental science and food technology. Thousands of medical doctors, scientists, and interested laypersons in Germany, Switzerland and Austria who from the many newspaper and magazine articles and from several TV features in the last couple of years were aware of this development of potential breakthroughs in a number of scientific disciplines and wanted to obtain more precise and broadly accessible information have been waiting for this book that will remain the definitive publication on the topic for many years to come. Russian and Chinese translations are in preparation. The book has been awarded the 1995 Book Price by the Scientific and Medical Network (U.K.) and the Swiss Award 1997 by the Swiss Parapsychological Foundation.

# What are biophotons?

Biophotons, or ultraweak photon emissions of biological systems, are weak electromagnetic waves in the optical range of the spectrum—in other words: light. All living cells of plants, animals and human beings emit biophotons which cannot be seen by the naked eye but can be measured by special equipment developed by German researchers.

This light emission is an expression of the functional state of the living organism and its measurement therefore can be used to assess this state. Cancer cells and healthy cells of the same type, for instance, can be discriminated by typical differences in biophoton emission. After an initial decade and a half of basic research on this discovery, biophysicists of various European and Asian countries are now exploring the many interesting applications which range across such diverse fields as cancer research, non-invasive early medical diagnosis, food and water quality testing, chemical and electromagnetic contamination testing, cell communication, and various applications in biotechnology.

According to the biophoton theory developed on the base of these discoveries the biophoton light is stored in the cells of the organism—more precisely, in the DNA molecules of their nuclei and a dynamic web of light constantly released and absorbed by the DNA may connect cell organelles, cells, tissues, and organs within the body and serve as the organism's main communication network and as the principal regulating instance for all life processes. The processes of morphogenesis, growth, differentiation and regeneration are also explained by the structuring and regulating activity of the coherent biophoton field. The holographic biophoton field of the brain and the nervous system, and maybe even that of the whole organism, may also be basis of memory and other phenomena of consciousness, as postulated by neurophysiologist Karl Pribram an others. The consciousness-like coherence properties of the biophoton field are closely related to its base in the properties of the physical vacuum and indicate its possible role as an interface to the non-physical realms of mind, psyche and c onsciousness.

The discovery of biophoton emission also lends scientific support to some unconventional methods of healing based on concepts of homeostasis (self-regulation of the organism), such as various somatic therapies, homeopathy and acupuncture. The "ch'i" energy flowing in our bodies' energy channels (meridians) which according to Traditional Chinese Medicine regulates our body functions may be related to node lines of the organism's biophoton field. The "prana" of Indian Yoga physiology may be a similar regulating energy force that has a basis in weak, coherent electromagnetic biofields.

# Background

First discovered in 1923 by Russian medical scientist Professor Alexander G.Gurvich (who named them "mitogenetic rays") and in the 1930s widely researched in Europe and the USA, biophotons have been rediscovered and backed since the 1970s by ample experimental and theoretical evidence by European scientists. In 1974 German biophysicist Fritz-Albert Popp has proved their existence, their origin from the DNA and later their coherence (laser-like nature), and has developed biophoton theory to explain their possible biological role and the ways in which they may control biochemical processes, growth, differentiation etc. Popp's biophoton theory leads to many startling insights into the life processes and may well provide one of the major elements of a future theory of life and holistic medical practice based on such an approach. The importance of the discovery has been confirmed by eminent scientists such as Herbert Froehlich and Nobel laureate Ilya Prigogine. Since 1992, the International Institute of Biophysics, a network of research laboratories in more than 10 countries, based in Germany, is coordinating research in this field which promises rapid development in the next decade.

#### Aims of the book

To date the few books about biophotons have been highly technical and written mainly in German. Not even among these, there was any single book integrating all that is known today about this fascinating field of science which is likely to become soon a much discussed topic also in the English-speaking world. The author, who in 1994-95 has served as Managing Director of the International Institute of Biophysics at Neuss (Germany) and still is a member of the Board of Directors of this institute, has closely followed biophoton research since 1977 and so was predestined to write the first comprehensive account of the subject ever made. His aim was to reach a wider public among scientists, medical doctors and the scientifically aware.

The book which embeds the more technical parts in a popular treatment of the historical antecedents of the concept of "energy bodies," "life energies," and biolectricity, and to the agesold scientific controversy between vitalistic and mechanistic trends in biology and medicine, also appeals to a general readership interested in new developments in the biological and physical sciences and in medicine and in their interplay with consciousness research and new age ideas.

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