

Research on the use of solar energy made in the Soviet Union

written by V.A. Baum | 1 Dicembre 2008



The features of the modern power industry which have developed over almost 150 years will soon undergo very great changes, in view of the need to utilize new sources of energy and new methods for transforming energy. The power industry of the economically advanced countries is at present so immense that it is essential to begin preparing for the changes well in advance.

Recently solar radiation has come to be regarded as one of the new promising sources of energy.¹⁻⁶ Yet only a short while ago a very modest part had been accorded to it in the future power balance. However, in view of the achievements in physics, the production of new specialized materials, and the possibilities of modern industry, it can be expected that in the near future solar energy can be a supplementary source of energy. Then, as the methods of its utilization are perfected, it could come to

play an ever-increasing role.

The problem of utilizing solar radiation could be formulated as studying the interaction of the radial energy of the sun with live and dead matter and determining possible ways for the practical use of this interaction. However, when the problem is formulated in such a general way, the volume of research becomes too large and indefinite. It is expedient to conduct the research first in those directions which could be expected to produce the most important practical results in the shortest space of time. From this point of view, we believe the primary directions of research should be the following: (1) Studies of the Earth's climate and the extent to which it could be controlled. These studies would include both the elaboration of methods for controlling climatic conditions in large territories and also the changing of micro-climates. (2) Studying photochemical processes, particularly photosynthesis, both for the purpose of increasing crop harvests and for determining the possibility of creating artificial chemical systems for obtaining food products and energy.

In allegato il testo integrale.

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