

Title Renewable Energy from Air through M-Cycle

Speaker Dr. Valeriy S. Maisotsenko
 Professor Emeritus, Chief Scientist and Founder,
 Coolerado Corp and Idalex Inc.,
 USA



Date & Time Wednesday, June 24, 2015 4:00 p.m.
Place I²CNER Hall, Ito campus, Kyushu University

Abstract

M-Cycle (Maisotsenko Cycle) is an indirect evaporative cooling process, which was invented by prof. Dr. Valeriy S. Maisotsenko. The M-Cycle is a unique process to attain dew point temperature of process air, whereas the limitation of conventional type evaporative cooling is wet-bulb temperature. The concept of the M-Cycle was successfully the first time demonstrated and commercialized at the market as an air-conditioner by Coolerado Corporation (USA). A key technology of the M-Cycle is the unique “heat and mass transfer” process. A variety of heat and mass transfer enhancement can be implemented with the M-Cycle structure and many types of application, such as heat recuperators, water distillators, concentrators etc., are currently investigated in worldwide. These applications have potentials to achieve large energy savings because the M-Cycle solely utilizes potential of atmospheric wet air. In the lecture, the fundamentals of the M-Cycle are explained as well as a variety of applications and practices of the M-Cycle technologies will be presented.

About the Speaker

Dr. Maisotsenko has devoted his entire professional career to developing energy efficient air conditioning and heat transfer technologies. He served as a Senior Researcher at the Odessa Civil Engineering Institute in the Ukraine. He also was a Professor the Chair of Heat Supply. In this capacity he delivered lectures on heating engineering, refrigeration engineering, heat transfer thermodynamics, air-conditioning. He became the Head of the scientific research laboratory and conducted research on the heat exchange processes, investigated and worked out new systems, apparatuses for air-conditioning and refrigeration engineering. He was also the Emeritus Professor of the Chair of Heat Supply. In this role he continued to deliver lectures at Odessa Institute of Civil Engineering, where he led the Scientific research co-operative to develop new pure ecological technologies. Dr. Maisotsenko is the inventor and creator of the “Maisotsenko Cycle (M-Cycle)”, the patented processes, which are the bases for the producing power and cooling process for improvement any power, cooling and air conditioning systems. Dr. Maisotsenko has published more than 250 scientific works including more than 150 patents in air conditioning, desalination, refrigeration and power production. He is the author of most of his own patents. This practical experience has provided Dr. Maisotsenko a tremendous experience defending and registering patents not just in the U.S. but worldwide. Presently he holds patents in many countries including the former USSR, the United States, Japan, the European Community, Asia and Australia.

Host: Assoc.Prof. Takahiko Miyazaki

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