50 Years of Compound Semiconductors at the Institute of Electron Technology

Anna Piotrowska

Łukasiewicz Research Network – Institute of Microelectronics and Photonics

Semiconductors initiated a new era in electronics and thus played the greatest role in creating the image of civilization at the turn of the 20th and 21st centuries, becoming ubiquitous in the life of modern society and determining the activities of future generations. The presentation, as part of the reminiscence session celebrating the 50th anniversary of '*Jaszowiec'* Conference aims at highlights the most important accomplishments of the Institute of Electron Technology Warsaw with particular emphasis on II-VI and III-V compounds and their application in electronic and optoelectronic devices. In particular, the review covers narrow gap HgCdTe for galvanomagnetic devices, GaAs-, GaP-, InP and GaSb-based materials for optoelectronics and photonics, SiC and GaN for RF and high power electronics, and finally ZnO and InGaZnO for transparent electronics and sensors. Results of comprehensive studies, combining fundamental research, material development, device design and processing are to be presented. Present status and future perspectives will be discussed.