

SEMICONDUCTOR NITRIDE LIGHT SOURCES: 2014 NOBEL PRIZE IN PHYSICS TO ISAMU AKASAKI, HIROSHI AMANO AND SHUJI NAKAMURA

Summary

Physical foundations of semiconductor light emitting devices, i.e. laser diodes (LDs) and light emitting diodes (LEDs), and history of studies concerning application of semiconductor light sources, including sources of red light, are shortly outlined. The seminal contributions of Isamu Akasaki, Hiroshi Amano and Shuji Nakamura to the investigations and applications of the group III metal

nitrides that led to emergence of blue, green and violet light sources in the last decade of XX century, honored by 2014 Nobel Prize in Physics, are presented in detail. Further developments in this area up to the present day and future perspectives, including the important role played therein by Polish research institutions, are also sketched.