

ON HYDROGEN-STIMULATED PASSIVATION
OF ELECTRICALLY ACTIVE CENTERS

IN $\text{Cd}_x\text{Zn}_{1-x}\text{Te}$

V.B. Brytan, O.M. Pigur, D.I. Tsiutsiura

Ivan Franko State Pedagogical University
(24, Ivan Franko Str., Drohobych 82100, Ukraine;
e-mail: vbrytan@yandex.ru)

S u m m a r y

An influence of hydrogen on electrical properties of $\text{Cd}_x\text{Zn}_{1-x}\text{Te}$ crystals with several values of x has been studied. Hydrogen has been shown to passivate shallow-level acceptor centers in crystals with conductivity of the p type, which may stimulate a growth of the specific resistance in low-resistance crystals by several to 10^3 times. In high-resistance compensated crystals, penetrated hydrogen results in a substantial reduction of their specific resistance, which may be caused by a variation of the concentration of electrically active centers of one type and, therefore, by a variation of the compensation degree.