

THERMODYNAMIC STABILITY OF $\text{InSb}_{1-x}\text{Bi}_x$
EPITAXIAL FILMS

V.G. Deibuk

Chernivtsi National University
(2, Kotsyubynskogo Str., Chernivtsi 58012, Ukraine;
e-mail: vdei@chnu.cv.ua)

S u m m a r y

The immiscibility region and critical temperatures of the spinodal decomposition of epitaxial thin films of a ternary semiconducting system $\text{InSb}_{1-x}\text{Bi}_x/\text{InSb}$ have been calculated taking into account both the deformation energy and the effect of plastic relaxation caused by mismatch dislocations. The relevant narrowing of the spinodal decomposition region and the reduction of its critical temperature have been demonstrated.