ELECTROPHYSICAL PROPERTIES OF THE In – Te SYSTEM IN THE MISCIBILITY GAP REGION

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S u m m a r y

Electroconductivity measurements for liquid In – Te alloys are performed throughout the entire miscibility gap region, employing the original experimental technique under high temperature and high pressure. The experiments are performed at temperatures up to 1200 K in a neutral medium excess presusre of argon gas. The liquid-liquid coexistence curve on the phase diagram of the In – Te system and the critical point parameters are determined. The shape of the coexistence curve and its diameter behaviour are analyzed, and critical indices are evaluated. A correlation of the metal-nonmetal electron transition with phase separation in liquid immiscible In – Te alloys is discussed briefly.