

Optically Transparent ITO Emitter Contacts in the Fabrication of InP/InGaAs HPT's

S.A. Bashar and A.A. Rezazadeh. "Optically Transparent ITO Emitter Contacts in the Fabrication of InP/InGaAs HPT's." 1995 Transactions on Microwave Theory and Techniques 43.9 (Sep. 1995, Part II [T-MTT] (Special Issue on Microwave and Millimeter Wave Photonics)): 2299-2303.

An optically transparent emitter InP/InGaAs heterojunction phototransistor (HPT) fabricated using Iridium Tin Oxide (ITO) as the ohmic contact is presented for the first time; these devices show similar electrical characteristics to their opaque emitter counterparts and enhanced optical responsivities (5.4 A/W at 780 nm wavelength). Measured spectral response suggests responsivities of up to 30 A/W and 22 A/W at $\lambda = 1310$ nm and 1550 nm respectively.

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