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Auger recombination in InGaN/GaN CHI-CHAN HUANG, WEN-CHING CHAO, WEI-SHENG CHEN, ANTARYAMI MOHANTA, DER-JUN JANG, Department of Physics, National Sun Yat-sen University — The radiative and nonradiative recombination of InGaN/GaN samples were studied by time-resolved photoluminescence apparatus and time-integrated photoluminescence by photoexcitation with laser pulses of temporal resolution of 100 ps and energies of 3.0 and 4.5 eV. We found that the Shockley-Read-Hall and Auger coefficients derived from the analysis of TRPL using the rate equation of carrier concentration were much larger than those derived from the time-integrated PL photoexcited with various numbers of carrier concentration. We will discuss the discrepancy.

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