APPLICATION NOTE

EXCELLENCE IN OPTICAL QUALITY PERFORMANCES

MBE49 Production System

AlGaInP quaternary alloy, due to its wavelength emitting range (630 – 690 nm), is a key material for the growth of CD and DVD laser diodes.

Growths and structure characterizations were performed by the Riber Application Laboratory, using the Riber MBE49 system with ABN700 effusion cells (Ga, In, Al) and the KPC1200 phosphorus valved cracker cell.

Results:

AlGaInP/GaInP quantum well structures were grown on 2”, GaAs(Si) substrates. Based on photoluminescence measurements on a 13x2” platen, the structure exhibits:

Optical transitions involving fundamental and higher interband excitons (e₁hh₁ & e₁lh₁ respectively) demonstrating the excellent optical quality of the wafers.

For more information please contact info@riber.com