APPLICATION NOTE

AlGaInP / GaInP MQW SHOWS EXCELLENT UNIFORMITIES

MBE49 Production System

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

Growth and structure characterization were performed by the Riber Application Laboratory, using the Riber MBE49 (multi-4") production system, equipped with the double filament effusion cell, Model ABN700DF, for Ga, Al, In, and with the phosphorus valved cracker cell, Model KPC1200.

Results:

The AlGaInP/InGaP multi-quantum wells were grown on 2", GaAs(Si) substrates, at 480 °C. Based on photoluminescence measurements over the entire 13x2" platen, the structure exhibits:

- $\Delta \lambda / \lambda = \pm 0.06 \%$ demonstrating the excellent thickness and composition uniformities of the samples.