ADVANCED MATERIALS AND DEVICES LABORATORIES SCHOOL OF ENGINEERING, UNIVERSITY OF TOKYO

7°3°1 HONGO. BUNKYO°KU. TOKYO. 113. JAPAN

SEMINAR ANNOUNCEMENT

Christophe Starck

Alcatel Alsthom Corporate Research Center Marcoussis, France

"FABRICATION OF 1.55 µm OXIDIZED VCSELS WITH TOP METAMORPHIC GaAs/GaAlAs AND BOTTOM InP/InGaAsP Bragg Reflectors"

DATE: Tuesday, May 19, 1998

TIME: 10:30-11:00

PLACE: Rm. 400, Engineering Building 10

ABSTRACT

We present the fabrication of 1.55 μm multi-quantum well Vertical Cavity Surface Emitting Lasers (VCSEL) grown by Gas Source MBE on InP substrate. We use a combination of lattice-matched InP/InGaAsP and GaAs/GaAlAs metamorphic reflectors with high reflectivities. Room temperature operation in pulsed mode is achieved. We also demonstrate that selective wet oxidation of GaAlAs can be applied to metamorphic material.

BIOGRAPHY

Christophe Starck was born in Sarreguemines, France in October 1960. He received the Doctor degree from the Institut National des Sciences Apliquees -Toulouse, France- in 1990. During his PhD preparation, he joined Alcatel-Alsthom Recherche where he worked successively on laser heterostructure characterization by photoluminescence, Gas Source MBE growth of different structures and materials (lasers , modulators, strained InGaAsP QWs) and device characterization /modeling. In this field he worked on electro-optic DBRs, integrated laser modulators and high temperature lasers. He is currently working on the design and characterization of long wavelength VCSELs.

AMD Lab. Host: Yoshiaki Nakano