

# Session Q

## FET Devices



**Chairman:**

**J.E. Degenford**

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Major progress in efficiency, power, frequency, and both high and low voltage operation in FET devices will be reported in this session. A discussion of the statistical distribution of noise parameters in pulse-doped GaAs MESFETs is also included. A heterostructure FET with 75% power added efficiency fabricated using dry recess etching which has achieved a power added efficiency of 48% with output power of 0.97 W at 18 GHz. In the millimeter-wave area, an optimized 0.1 mm MESFET with  $f_{max} > 150$  GHz will be reported.

Papers on high voltage FET designs as well as low supply voltage HEMTs will be presented. The latter is very important for portable or battery operated equipment. Finally, measured distributions of noise parameters of pulsed doped MESFETs are presented which is helpful in estimating noise figure yield in production low noise amplifiers.

**10:00 a.m.–11:20 a.m., Wednesday, June 3, 1992**  
**Kiva Auditorium**