

CAMT Seminar

“A Review of a Plasma Based Copper Etch Process and Reliability”

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Date: 26 June, 2019 (Wed) 10:30-11:30

Location: Main Conference Room (1st floor), Bldg. A12

Center for Atomic and Molecular Technologies (CAMT)

(A12 棟 1 階会議室)

Abstract:

A novel room temperature plasma-based copper etch process was invented by my group. It has been demonstrated IC, e.g., BiCMOS chips and $< 0.5 \mu$ dimension, and TFT products, i.e., 15" TFT LCD panels, around the world. In this talk, I am going to review the fundamental mechanism that enables the solution of the problem bothered the industry since the beginning of the production. Process parameters that affect etch rate, slope profile, and step coverage, will be discussed. The lifetime of the etched copper line including the initiation of the failure process and the influence of the capping layer will also be discussed. In summary, this IC compatible process provides a simple, reliable, and economic method for the fabrication of nano, giga, and optoelectronic products.

(Host: Satoshi Hamaguchi Ext:7913)