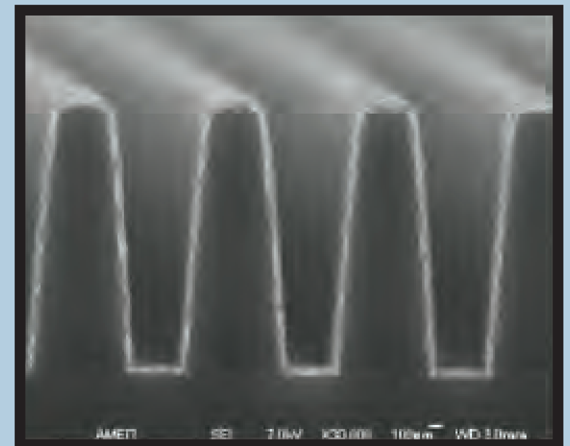
# PULSED LAYER DEPOSITION

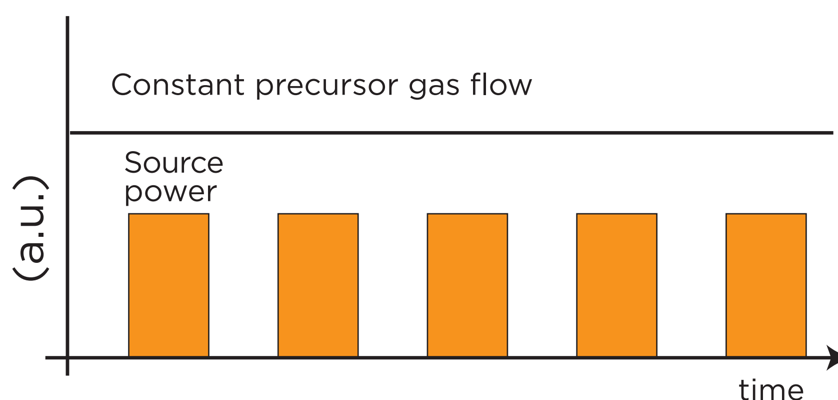
In 2000, Tegal engineers developed a pulsed layer deposition (PLD) process for depositing thin films. In this approach, a constant flow of precursor gas is introduced into the process chamber and pulsed rf power is delivered to the plasma source. Pulsing of the source power provides improved conformality over non-pulsed CVD techniques.

A wide range of metallorganic precursors are available today that are compatible with PLD technology. PLD can be used to deposit metals and dielectric films at higher rates with considerably higher conformality than that which is achievable with conventional CVD. Many existing CVD and ALD process modules are compatible with PLD.

## HIGHLIGHTS OF PULSED LAYER DEPOSITION TECHNOLOGY

- Improved conformality over standard CVD and PECVD
- Compatible with many existing CVD hardware configurations
- Wide range of compatible CVD precursors
- Compatible with dielectric and conductive films






**U.S. PATENTS FOR PLASMA ENHANCED PULSED LAYER DEPOSITION**

US 6,689,220

US 7,361,387

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