

後段金屬原子層奈米孔洞沉積系統

技術資料

Metal-ALD System

- Spec. of ALD hardware



Basic system	Picosun™ R-200 Adv PicoPlasma™ LC
Metal film	TiN
Precursors	PicoSolution™ 100 source systems for high vapor pressure precursors.
	PicoHot™ 300 source systems for low vapor pressure precursors.
	Picogases™ connection (NH ₃)
Source inlet cabinet	The volume of cabinet is up to storage 3 PicoSolutoin 100 containers
Plasma system	ICP remote plasma generator
Plasma source	PicoPlasma™, gas line (NH ₃ , H ₂ , H ₂ /N ₂)
Substrate Temp.	RT~450°C
Wafer size	~8 inch

Metal-ALD System

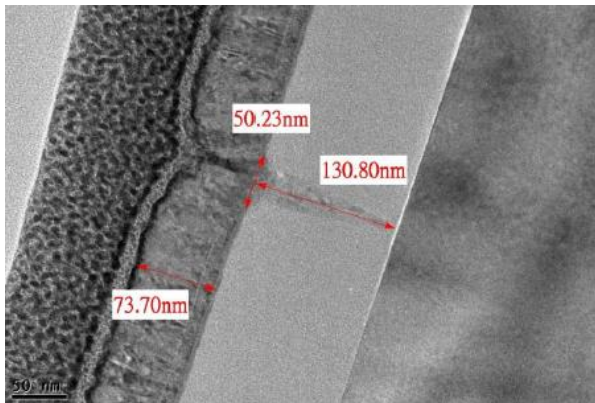
- Spec. of ALD metal film

TiN

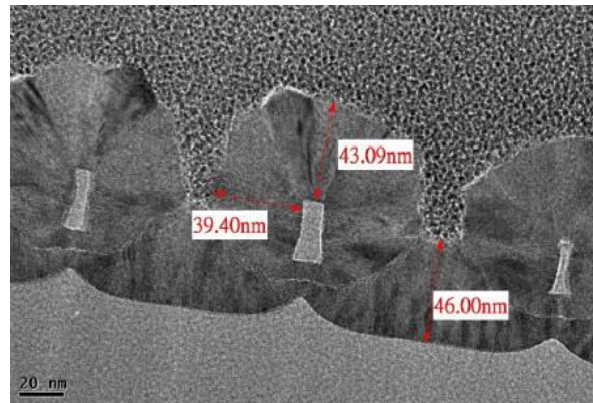
- Rs of TiN film: 226.81 $\mu\Omega\text{-cm}$
- U% of resistivity: 4.61% for 6" wafer

- Process Capability

50nm Via filling



Gate all-around



Step coverage

