Novyka® Family Selective Etch Systems

Differentiated Performance in Radical Based Ultra Selective Materials Removal

Atomic Surface Engineering™

Based on industry leading remote plasma technologies, Novyka® family selective etch systems offer unique process solutions and deliver outstanding results in isotropic and anisotropic etch of various dielectric and metal materials.

As part of Atomic Surface Engineering™ product portfolio, Novyka® family selective etch processes are ideal in efficient removal of thin and delicate layers in construction of advanced 3D transistor and capacitor structures.

Product Features and Advantages

Inductively coupled remote plasma source

- Fully grounded Faraday shield design
- Wide process window
- Versatile chemical systems
- High plasma density
- Lowest plasma potential and electron temperature
- Low consumable cost
- Low particulate contamination
- > 10,000 units in production
- Stable performance
- Lifetime plasma source warranty

Chamber technology

- Complete ion filtering capability
- Radical uniformity tuning capability
- Secondary radical capability
- Wafer temperature tuning capability
- Wafer bias tuning capability

System productivity

- High productivity
- Low cost of ownership

Product Applications

Logic/Memory

- 3D FINFET fin trim
- Pre-Epi clean
- Contact clean
- High selectivity silicon removal
- Dummy silicon gate removal
- Self-aligned double patterning
- Silicon etchback
- Silicon oxide etchback
- High selectivity silicon nitride removal
- High selectivity metal nitride removal

Power/Analog IC

- High selectivity isotropic silicon etch
- High selectivity isotropic silicon oxide etch
- High selectivity isotropic silicon nitride etch

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