



*Enabling The Next Generation of Research:*

## Hollow Cathode Research Scale PA-ALD/CVD Systems



- Meaglow's hollow cathode plasma source (featuring low oxygen contamination, high radical production and low plasma damage).
- 4" or 8" substrates , other sizes possible.
- Patented high temperature pulse processes.
- Superior nitride deposition.
- No short circuiting of plasma source.
- Carbon reduction techniques (patents pending).
- Plasma and thermal ALD during the same run.
- UHV compatibility.
- Computer control.
- Temperatures and processes to 650° C.
- Optional process pressure control.
- Optional etch facility incorporation.
- Customised solutions.

For more information on Meaglow Ltd or its hollow cathode plasma sources, visit our website [www.meaglow.com](http://www.meaglow.com) or contact us at [info@meaglow.com](mailto:info@meaglow.com) .

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## Based on Meaglow's Patented Breakthroughs in ALD Plasma Technology and CVD Pulse Deposition

- ALD and pulsed CVD processes in the one system.
- Plasma power from 300 to 1000 watts or more.
- Hollow cathode plasma technology.

Meaglow developed its CVD pulsed deposition technique from 2009 for operation at higher temperatures than ALD. The technique still allows smooth conformal deposition (to less than 1 nm RMS surface roughness). Growth rates of up to two orders of magnitude higher than ALD are possible.

From these beginnings Meaglow designed a unique hollow cathode plasma source that is being widely adopted by the ALD community. It also developed a means of low temperature carbon removal and particle reduction. Meaglow is introducing these new technologies to the ALD community. A listing of related papers is at <http://www.meaglow.com/publications/>

For more information on Meaglow Ltd or its hollow cathode plasma sources, visit our website [www.meaglow.com](http://www.meaglow.com) or contact us at [info@meaglow.com](mailto:info@meaglow.com).

Meaglow Ltd manufactures and sells crystal growth research reactors and supplies hollow cathode plasma sources for advanced semiconductor applications.

