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**Battelle Number(s):**

13358

Patent(s) Issued

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Available Technologies

## Purified Halogen Gas Production

### SUMMARY

This is a new means of producing purified halogen gases, such as bromine or fluorine, for use in etching of semiconductors or other materials and gas-phase reaction studies. The patented method involves the bombardment of a solid halide sample with a laser to produce halogen gas particles that are then focused and collected for subsequent use.

Using the laser-based method, purified halogen gases in controllable quantities, velocities and spin states can be readily produced. The method is believed to be much more selective and provide higher yields than the plasma-based production methods that are typically used.



### Patents & Intellectual Property

- » Patent #: 6,911,649

### Technology Portfolio(s)

- » Chemical Processing and Catalysis

### Potential Industry Applications

- » Chemicals
- » Computers & Electronics

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