

## **Commercial-Scale, Microchannel Hydrogen Production**

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Velocys<sup>®</sup> is developing revolutionary processing systems to provide chemical and energy companies with substantial cost savings, improved yields, and greater energy efficiency. Our systems are based on the patented microchannel process technology developed by Velocys and its parent, Battelle. We are developing a low-cost, energy-efficient modular hydrogen production process and will build a commercial-scale demonstration facility in late 2004. Significant advancements achieved by Velocys include:

- Completing 1000+ hour device demonstrations at commercial process conditions for high-temperature and high-pressure steam reforming.
- Designing complex manifold systems that distribute fluids evenly in multichannel devices
- Fabricating large, high-quality microchannel devices using mass production techniques

Successful demonstration of commercial-scale hydrogen generation in a microchannel device opens the door to:

- Gas-to-liquid (GTL) processes to convert stranded natural gas into useful liquid products
- Rapid cycle separation process to upgrade subquality natural gas streams
- Oxidation reactors for lower-cost olefin (ethylene, propylene) production
- High-performance emulsion process.