

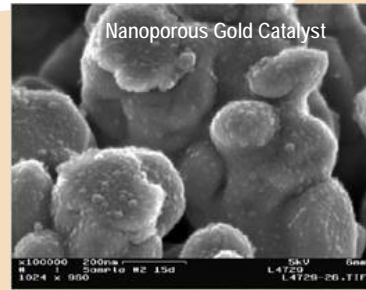


# 1-MCP Sensor

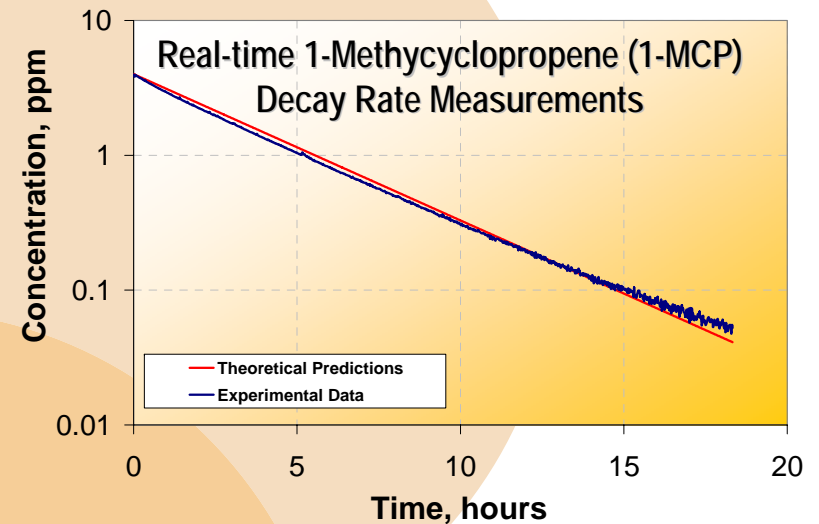


## Technology Description:

- Innovation: *nanoporous* gold electrocatalyst
- Use: Sensing of 1-MCP in air
- Sensing approach: Amperometric
- Compact and field portable
- Configured specifically for measuring 1-MCP (simultaneous measurement with ethylene gas optional)
- **BETTER:** Very linear response from <10-ppb to >10-ppm, very difficult with GC
- **FASTER:** Real-time measurement with fast response (<10-s)
- **CHEAPER:** An order of magnitude cheaper than gas chromatography



## Proof and Validation:



## Value Proposition:

- Fruit, vegetables, and flowers show extreme sensitivity to presence of ethylene in air (to as low as 0.01-ppm) – ethylene accelerates ripening and decay
- Worldwide postharvest losses of perishable food currently between 30 and 40%
- Decay currently controlled with 1-MCP gas at 1-ppm or below
- Value proposition: Real-time measurement of 1-MCP concentration for better control and treatment
- Beneficiaries of 1-MCP sensing technology: horticultural and floriculture research institutions, growers, *packing houses, cold-storage facilities,* and greenhouses

## Status:

- Advanced prototypes available at special ordering request
- Low cost commercial product planned for manufacturing in mid to late 2008
- Patent protection filed in U.S. and EU

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