The MarqMetrix® FlowRaman® Cell is a Raman BallProbe® intended for demanding process flow-through applications. The unibody design places the patented BallProbe spherical optic directly in the flow path, minimizing dead volume and sample handling requirements while taking full advantage of the optical efficiencies.

The MarqMetrix FlowRaman Cell (FRC) is designed for easy integration into continuous flow applications. Plumbing connection are made with standard 1/8 in. tube fitting connectors (e.g. Swagelok, Parker A-lok, Hoke, etc.) Each FRC is individually pressure tested so that you can quickly and confidently integrate powerful Raman measurements into your continuous flow process.

For more information call: 206-971-3625
info@MarqMetrix.com
MarqMetrix.com

A medium-pressure FRC is available compatible with pressures up to 15,000psi, and temperatures up to 400°C. Please call MarqMetrix to discuss your application requirements.

The power of Raman, the simplicity of MarqMetrix
The use of high-performance Hastelloy and sapphire makes the FRC resistant to harsh chemical environments. The FRC has been installed in commercial applications ranging from cryogenic environments to boiling concentrated acids.

Additionally, the curved shape of the sapphire ball facilitates material exchange near the surface, preventing the buildup of materials that interfere with spectral acquisition. The form factor and ‘self-cleaning’ properties of the design make the FRC an ideal solution for Raman measurements in process flow applications.

The FRC is optimized to integrate with the MarqMetrix Fiber BallProbe, but can be used with other fiber optic probes that have a collimated excitation beam co-linear with the collection path.

### Optical Properties

- Optimized for use with the MarqMetrix Fiber Probe
- Accepts a collimated laser beam up to 5.6mm (0.22 in.) diameter
- Made with high purity UV-grade sapphire ball lens aligned along the C-axis, eliminating response variability due to birefringence

### Operating Conditions

- Suitable for continuous exposure to dilute and concentrated acids (hot & cold), bases and most organic solvents including ethanol, THF, ethyl acetate, acetone, DCM, toluene, pentane and acetonitrile
- Avoid prolonged exposure to aqua regia (gold option)

### Related Products

- **Process BallProbe** - 0.5 in. diameter, for more demanding environment
- **Fiber BallProbe** - filtered fiber optic interface specifically designed for the MarqMetrix BallProbe and MarqMetrix Raman All-In-One.