



# MicroLWCC

## LOW VOLUME FLOW CELL FOR FIA, HPLC AND PROCESS ANALYSIS



**MicroLWCC (WPI #LWCC-M-10, LWCC-M-50, LWCC-M-100)** is a new fiber optic low volume flow cell for UV/VIS/NIR absorbance analysis. The LWCC-M-10 has a 10mm pathlength, the LWCC-M-50 has a 50mm pathlength and the LWCC-M-100 has a 100mm pathlength. Based on WPI's established liquid core waveguide technology, the analyte solution functions as the core of a fluid filled light waveguide. Wetted parts in the sample cell light path are PEEK, fused silica and Teflon. Optical fibers are used to transport light to and from the sample cell. The cell can be used in biochemistry for DNA, RNA & protein quantification, colorimetric nutrient and trace metal analysis, drug discovery and dissolution testing, process control, and HPLC analysis.

## SPECIFICATIONS

|                             | M-10                     | M-50       | M-100      |
|-----------------------------|--------------------------|------------|------------|
| Optical Pathlength          | 10mm                     | 50mm       | 100mm      |
| Internal Volume             | 2.4 $\mu$ L              | 12 $\mu$ L | 24 $\mu$ L |
| Wavelength Range            | 200 – 1000nm             |            |            |
| Fiber Connection (SMA)      | 500 $\mu$ m              |            |            |
| Transmission @ 254 nm *     | > 40%                    | > 30%      | >10%       |
| Transmission @540nm *       | > 50%                    | > 40%      | >20%       |
| Maximum Pressure            | 1000 PSI                 |            |            |
| Refractive Index @ 280 nm** | < 7 mAU                  |            |            |
| Wetted Material             | PEEK, Fused Silica, PTFE |            |            |

\* Reference: Two 600  $\mu$ m fibers, butt-coupled

\*\* Measured using ASTM E 685 - 93, includes intrinsic solvent absorbance

WPI U.S. Patents: 5,444,807; 5,570,447; 5,604,587; 6,603,556; 6,385,380.

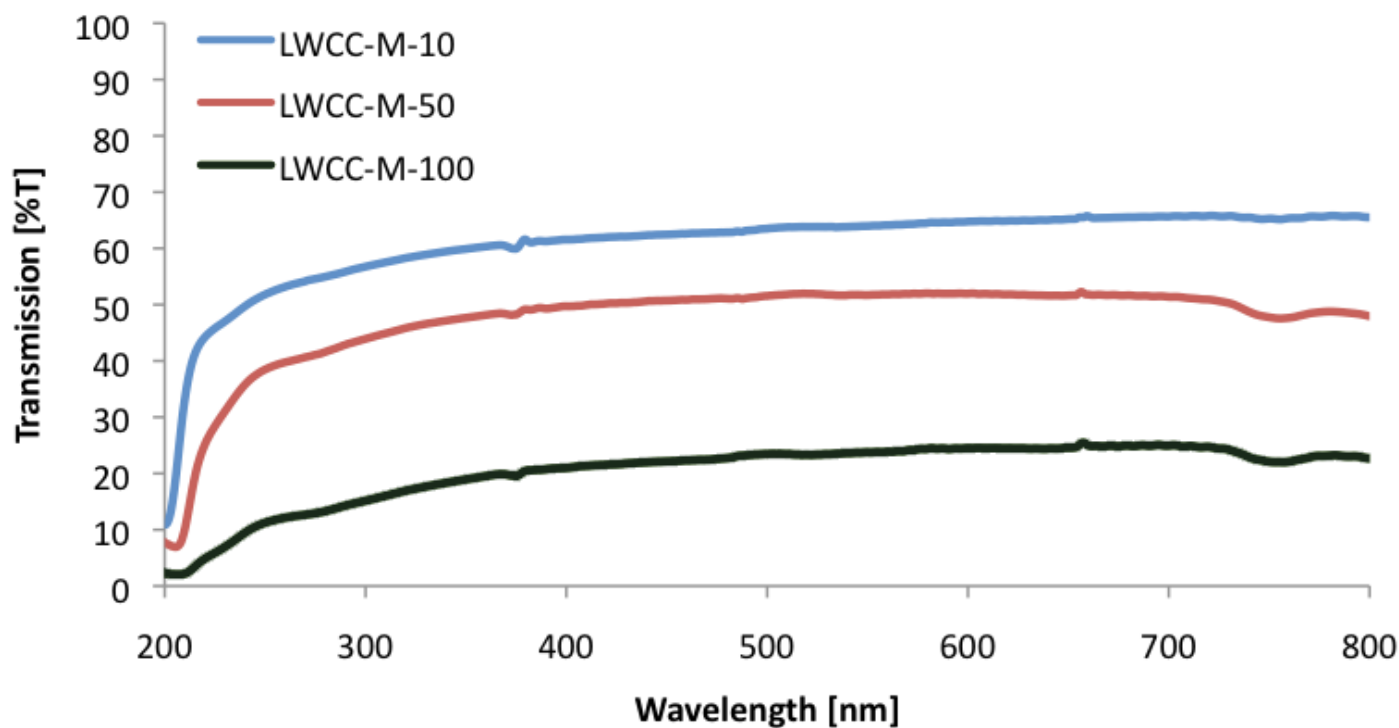


Fig. 1—This graph show the percentage of light transmission at various wavelengths. The higher the light transmission percentage, the greater the resolution.

## REFERENCES

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