



# TOQUARTZ

## Tech Specifications

**TOQUARTZ®**

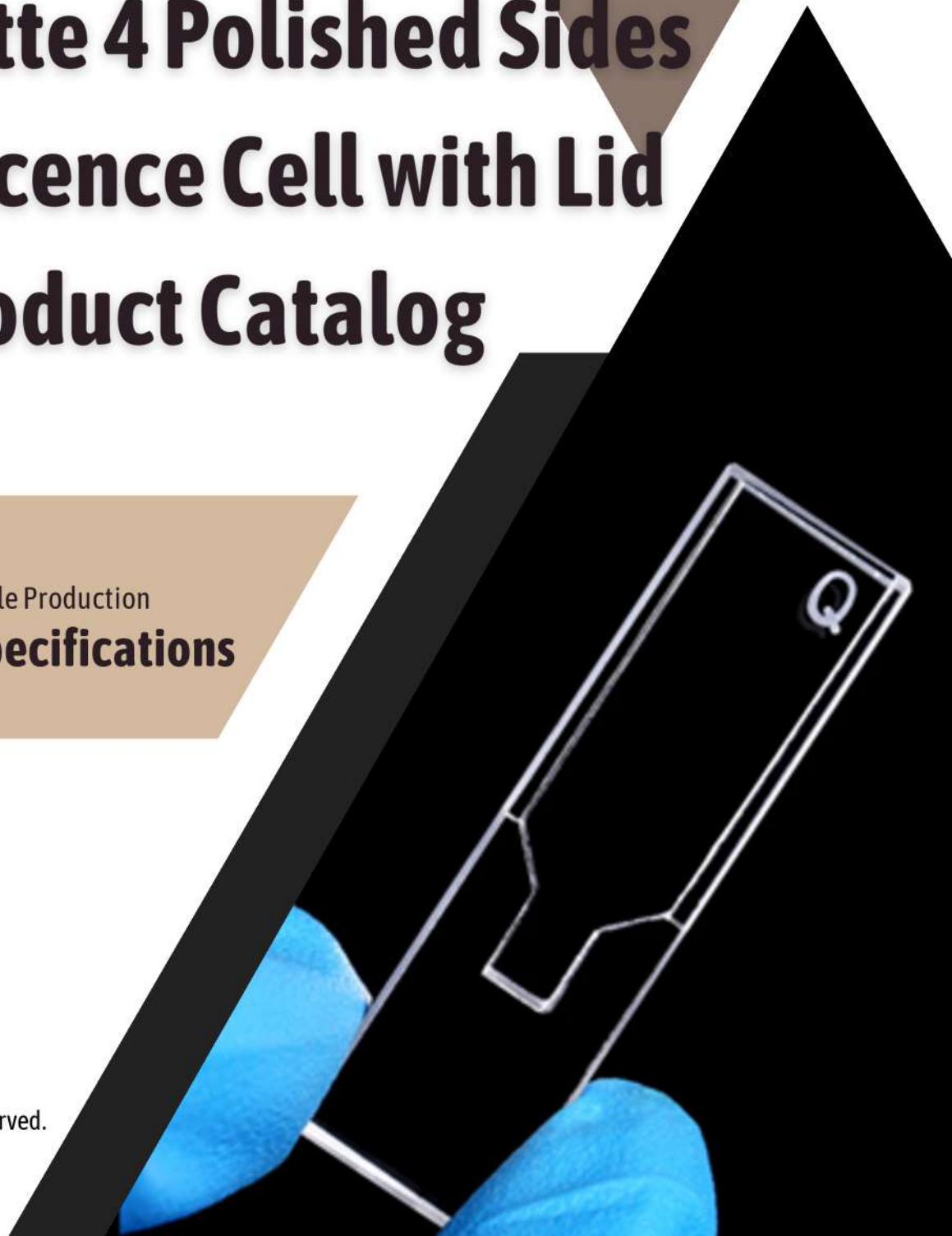
**Micro Quartz Glass**

**UV Cuvette 4 Polished Sides**

**Fluorescence Cell with Lid**

**Product Catalog**

Integrated Engineering & Agile Production  
**for Demanded Specifications**



# TOQUARTZ® MICRO FLUORESCENCE QUARTZ UV CUVETTE 4 POLISHED SIDES WITH LID

TOQUARTZ® is a specialized manufacturer of high-purity quartz products based in China, serving global B2B clients in laboratory instrumentation, biomedical research, and environmental monitoring. With in-house engineering support and flexible production capabilities, we offer both standard and custom TOQUARTZ® Fluorescence Quartz UV Cuvette with fast delivery and consistent quality.



## Product Overview



**TOQUARTZ® High-precision Micro Fluorescence Quartz UV Cuvette with lid featuring four polished sides for maximum optical performance. Designed for spectrophotometers and fluorescence analysis with wavelength range 200-2500nm. Ideal for laboratory equipment manufacturers and research institutions requiring precise measurements with micro-volume samples.**

# TOQUARTZ® MICRO FLUORESCENCE QUARTZ UV CUVETTE 4 POLISHED SIDES WITH LID



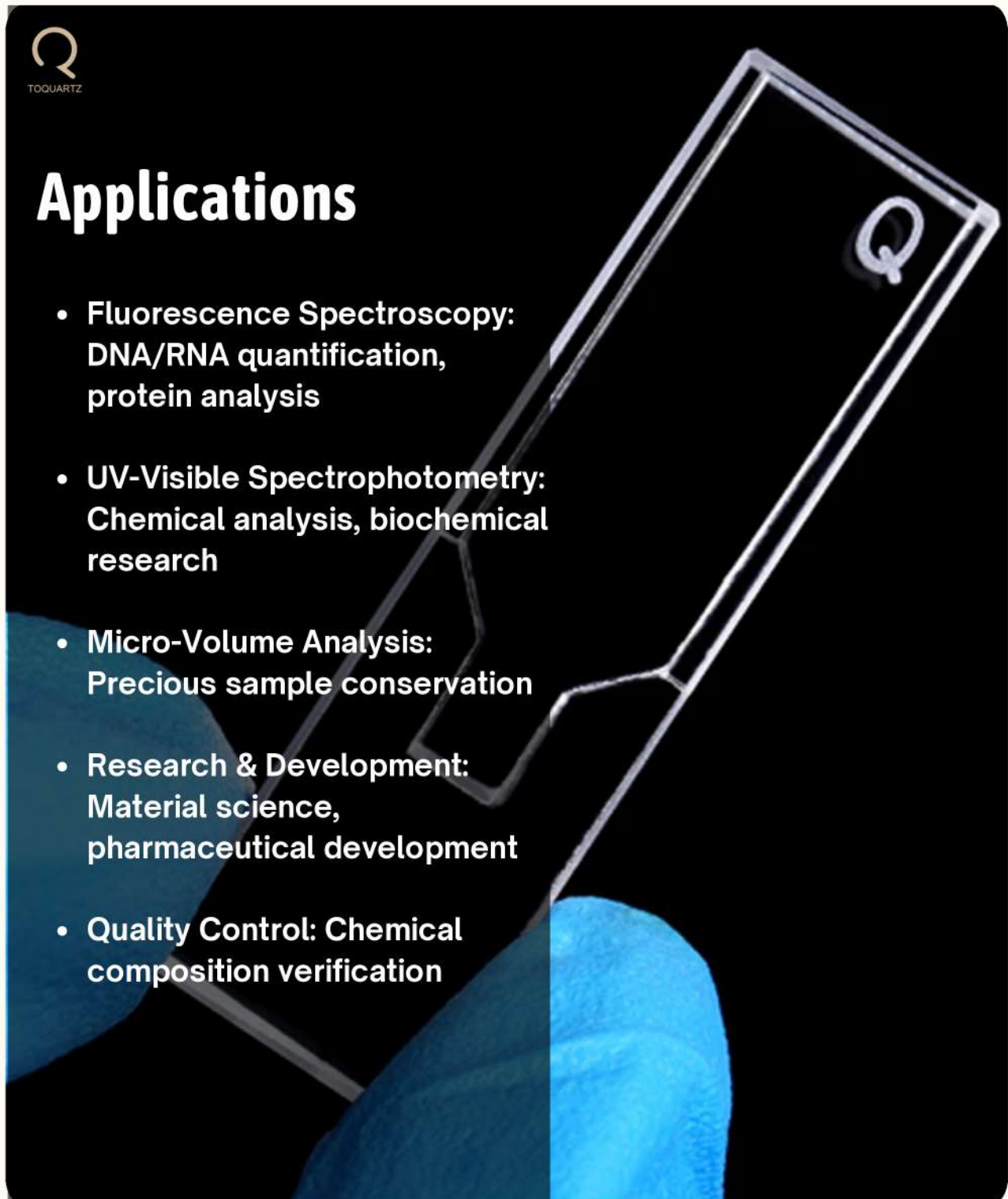
TOQUARTZ

## Key Features

- Superior Optical Clarity: Transmittance >80% across 200-2500nm wavelength range
- High Chemical Resistance: Stable against acids, bases, and most organic solvents
- Secure Sealing Lid: Prevents sample evaporation and contamination
- Micro-Volume Capability: Available in 50µl, 100µl, and 200µl volumes
- Precision Manufacturing: Tight tolerances ( $\pm 0.1\text{mm}$ ) for reliable fit
- 4 Polished Sides: Enables multi-directional light path for advanced applications



# TOQUARTZ® MICRO FLUORESCENCE QUARTZ UV CUVETTE 4 POLISHED SIDES WITH LID



**Applications**

- **Fluorescence Spectroscopy:**  
DNA/RNA quantification,  
protein analysis
- **UV-Visible Spectrophotometry:**  
Chemical analysis, biochemical  
research
- **Micro-Volume Analysis:**  
Precious sample conservation
- **Research & Development:**  
Material science,  
pharmaceutical development
- **Quality Control:** Chemical  
composition verification



# TECHNICAL SPECIFICATIONS

## I . Physical Properties

Property	Value / Description
Material	High-purity fused quartz ( $\geq 99.995\%$ SiO <sub>2</sub> )
External Dimensions	12.5 × 12.5 × 45 mm
Optical Path Length	10 mm
Sample Volume Options	50 $\mu$ L / 100 $\mu$ L / 200 $\mu$ L
Wall Thickness Tolerance	$\pm 0.1$ mm (standard); $\pm 0.05$ mm (custom on request)
Surface Flatness (optical faces)	$\leq \lambda/4$ (at 632.8 nm)



# TECHNICAL SPECIFICATIONS

## I . Physical Properties

Property	Value / Description
Thermal Expansion Coefficient	$\leq 5.5 \times 10^{-7} / \text{K}$ (20–300°C)
Maximum Operating Temperature	1100°C (continuous); up to 1600°C (short-term)
Density	2.2 g/cm <sup>3</sup>
Hardness (Mohs scale)	5.5–6
Lid Type	PTFE screw cap or quartz plug (customizable)



# TECHNICAL SPECIFICATIONS

## II . Chemical Properties

Property	Value / Description
Acid Resistance	Excellent (except HF and hot concentrated H <sub>3</sub> PO <sub>4</sub> )
Alkali Resistance	Good (stable in dilute alkalis)
Solvent Compatibility	Compatible with most organic solvents
Water Absorption	< 0.01%
Chemical Stability	Inert to most laboratory reagents
Leachables / Extractables	Negligible (suitable for trace analysis)



# TECHNICAL SPECIFICATIONS

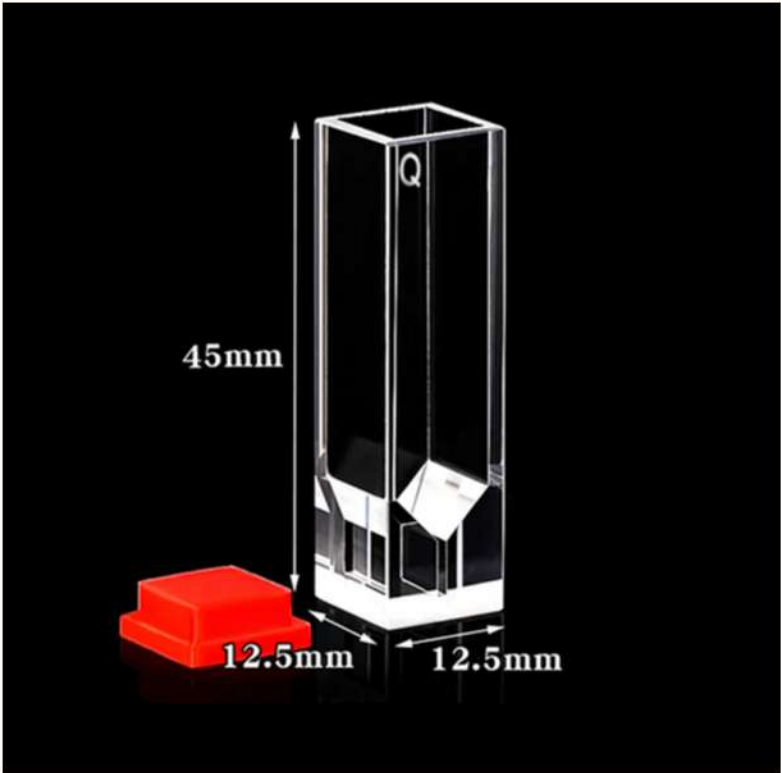
## III. Optical Properties

Property	Value / Description
Wavelength Transmission Range	200 nm – 2500 nm
UV Cutoff	~170 nm
Visible Light Transmission	> 90% (400–700 nm)
UV Transmission (200–300 nm)	> 80% (paired testing)
Refractive Index (at 589 nm)	1.4585
Birefringence	None (isotropic material)
Fluorescence Background	Ultra-low (suitable for sensitive fluorescence)
Optical Homogeneity	Class 1 (no striae or inclusions)
Surface Quality (optical faces)	60/40 scratch-dig or better





# SIZE CHART



10mm Path Length Micro Quartz UV Cuvette 4 Polished Sides Fluorescence Cell with Lid

Model	Description	Wavele ngth	Path Length	Volume	Transmittanc e	Outline Dimension
AT-BSM-037	10mm Path Length Micro Quartz UV Cuvette 4 Polished Sides Fluorescence Cell with Lid	200nm-2500nm	10mm	50µl/100µl/200µl	>80% (Paired Testing)	12.5x12.5x45 mm



## CUSTOMIZATION OPTIONS

**TOQUARTZ® offers specialized customization services to meet unique application requirements:**

- Custom dimensions to fit proprietary instruments
- Modified optical path lengths
- Specialized sample chamber volumes
- Flow-through modifications for continuous sampling
- Black-walled options for reduced scattered light



## CARE AND MAINTENANCE

- Handle by non-optical surfaces to prevent fingerprints
- Clean with appropriate solvents immediately after use
- For persistent residues, use mild detergent solution
- Store in original packaging in dust-free environment
- Compatible with autoclave sterilization (121°C)



# QUALITY ASSURANCE

Each TOQUARTZ Cuvette undergoes rigorous quality control testing:

- **Dimensional Verification:** Precision measurement of all critical dimensions
- **Optical Transmission Testing:** Verification of spectral transmission properties
- **Surface Quality Inspection:** Microscopic examination of polished surfaces
- **Paired Performance Testing:** Validation of optical consistency

## Contact Information

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Website: [www.toquartz.com](http://www.toquartz.com)

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*For technical specifications, custom requirements, or pricing information, please contact our sales team.*