

## Remove Polyimide from the Tips of CE Capillaries - Tech Information

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*Improving CE Injection Precision by Removing 2 mm of Polyimide at the Capillary Ends.*

### Overview

This article explains how removing a small section of polyimide from the inlet and outlet ends of non-coated CE capillaries can improve injection precision. The enhancement is believed to result from preventing polyimide swelling after repeated exposure to sodium hydroxide (NaOH), a commonly used rinsing and conditioning reagent in CE.

The MICROSOLV Window Maker™ provides a controlled method for removing the polyimide without damaging the fused silica.

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### Improving Injection Precision by Removing Polyimide at Capillary Ends

For non-coated CE capillaries, users can improve injection precision by burning off approximately 2 mm of the polyimide coating at both the inlet and outlet ends of the capillary. This removes the polymer layer at the most chemically stressed points—areas routinely exposed to concentrated sodium hydroxide (NaOH) during conditioning cycles.

### Why This Improves Precision

Polyimide is durable but can absorb or swell when exposed repeatedly to strong bases such as NaOH. Over time, this swelling can:

- Slightly constrict the inner diameter near the capillary ends
- Cause backpressure variability
- Interfere with sample loading
- Impact injection reproducibility

By removing a short section of the coating, the fused silica is exposed, preventing any swelling-related distortion at the injection interface.

This simple step can contribute to more consistent flow characteristics, more stable hydrodynamic injections, and overall improved reproducibility in CE systems.

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### Using the MICROSOLV Window Maker™

The MICROSOLV Window Maker™ is ideal for removing the polyimide cleanly and precisely, without damaging the fused silica core. The device burns away just the targeted 2 mm section, leaving a smooth and consistent exposed surface.

This method provides:

- Controlled heat application
  - Consistent removal of polyimide
  - Clean edges at the exposed glass
  - Repeatable results for every capillary prepared
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## Ordering Information

Click [HERE](#) for MICROSOLV Window Maker ordering information and pictures.

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**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900

Fax: (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)