

Nano-ESI emitters, the Sharp Singularity

Traceability & Quality Control Report

We are aware that the stability and the ionization efficiency of a nano-electrospray depends on several factors, including the particular sample being electro sprayed, the skill of the operator, the quality of the emitter, and the particular geometry of the emitter.

This document provides full traceability on the emitter production and geometric details. It is intended to help you find what influences your signals and better control the quality of your nano-electrospray.

Pack			
Pack No.:	2020 10 04_3 – Ref.: 10-05	ID:	10µm ± 2µm nominal
Packing Date:	2020 10 04	OD:	363µm ± 10µm nominal
Length	50mm ± 1mm nominal	Sharp angle:	15° ± 1° nominal

Source material:

Polymicro technologies™, Polymicro Flexible Fused Silica Capillary Tubing, Inner Diameter 10µm, Outer Diameter 375µm; Part No.: TSP010375; Lot. No.: BOPP04A

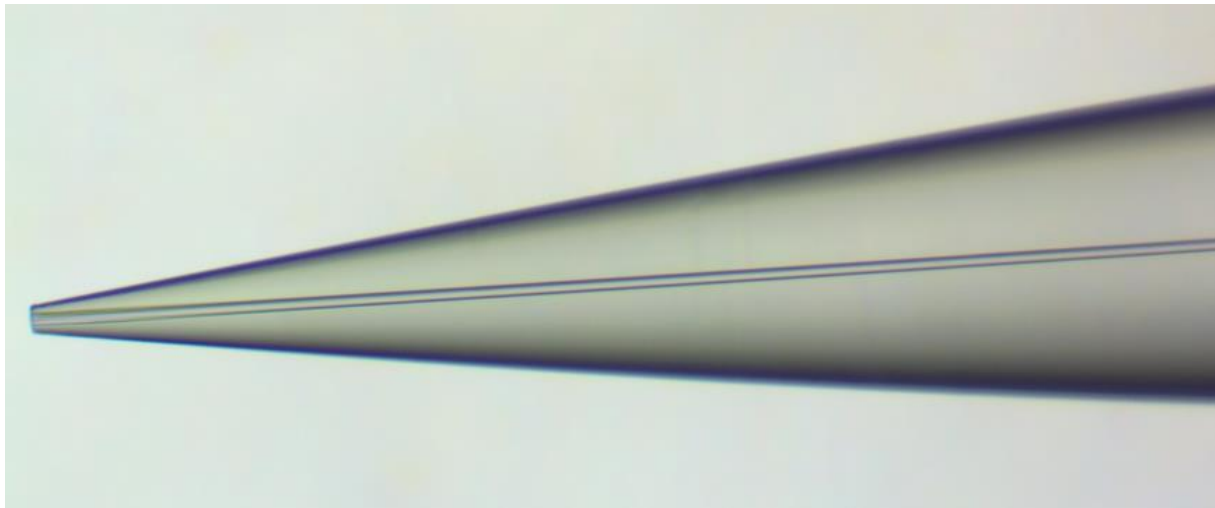
Physical properties:

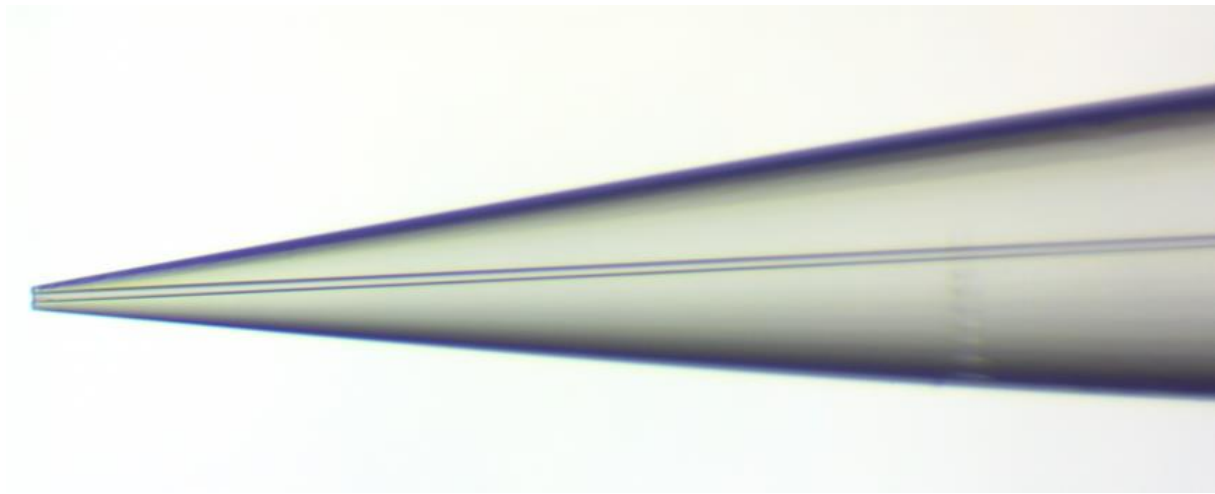
Coating Thickness per Side	20µm nominal
Cutting Style	Precision Cleave
Internal Diameter	10µm
Internal Diameter Tolerance	± 2µm
Material - Coating	Standard Polyimide
Material - Tubing	Synthetic Fused Silica
Net Weight	0.210/g
Outer Diameter	363µm
Outer Diameter Tolerance	± 10µm
Packaging Type	Spool
Proof Tested @ Minimum 100kpsi	100% for Strength
Temperature Range - Operating	-65° to +350°C
Tubing Length	10.0m minimum

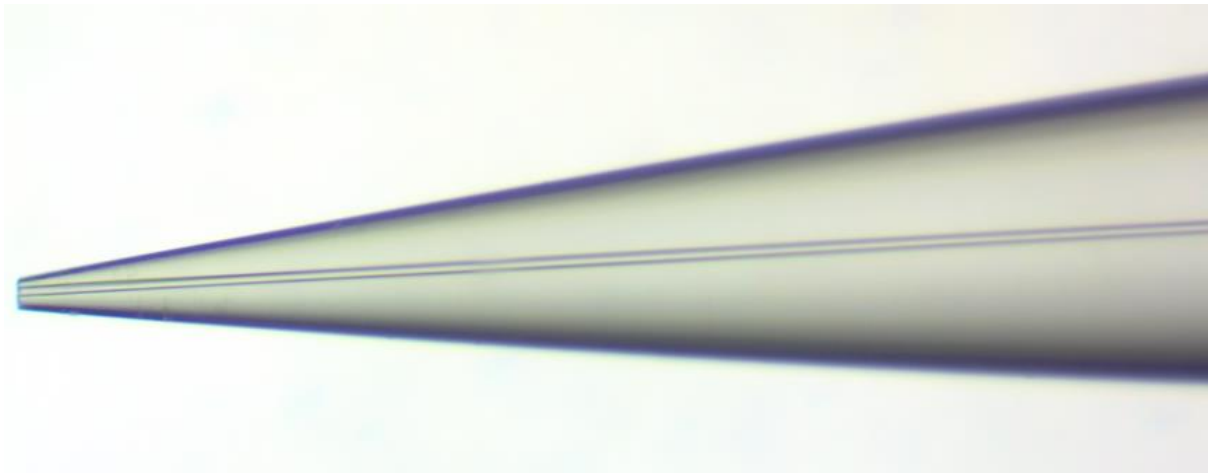
Chemical resistance:

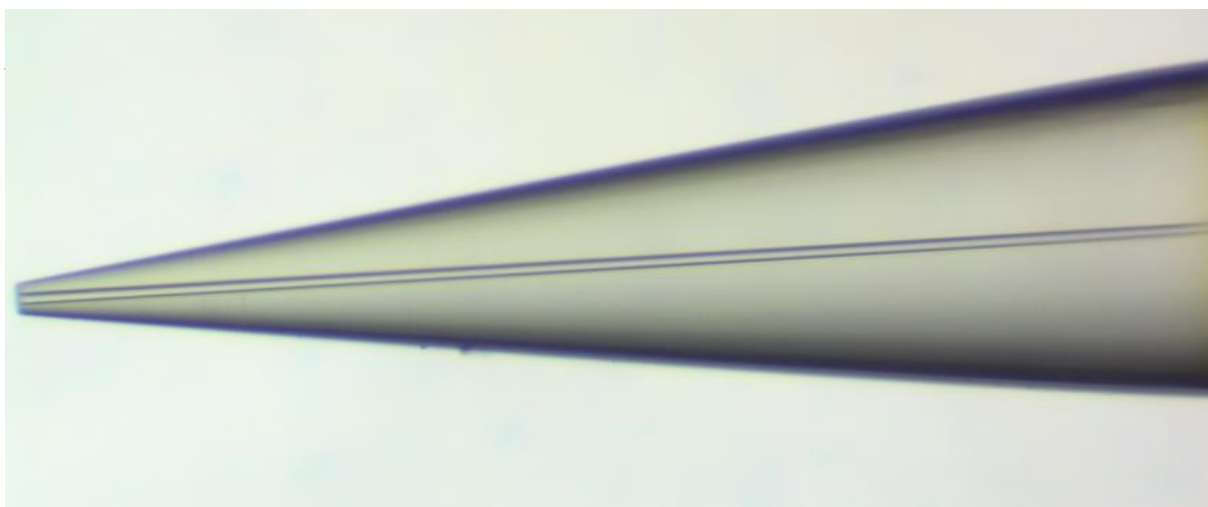
Sulfuric acid: When heated to 100-130°C, sulfuric acid removes the polyimide
 Strong bases: Caustic solutions, such as Sodium hydroxide, will also attack the polyimide.

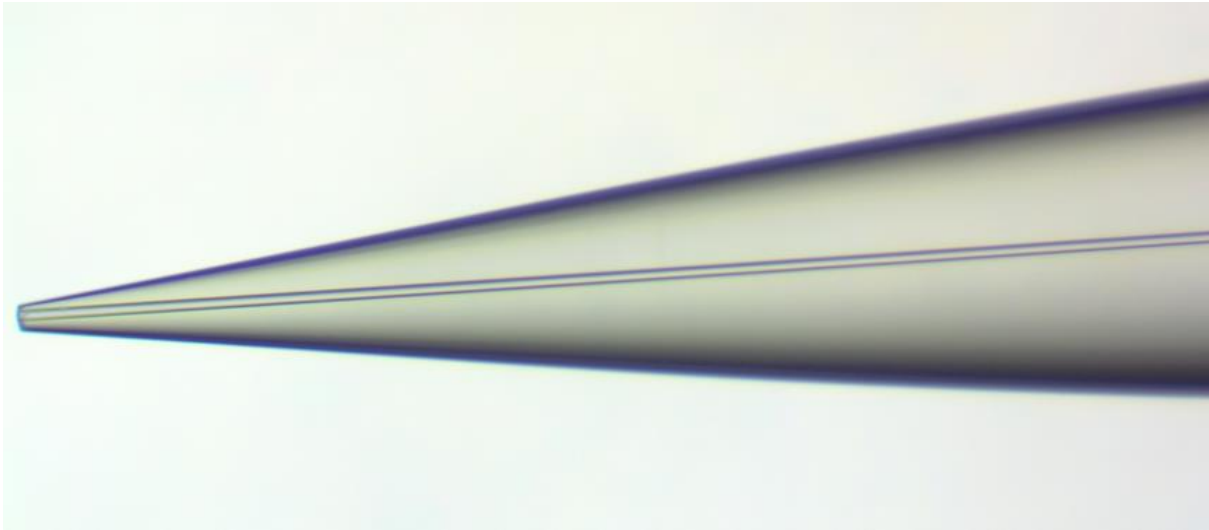
RoHS compliance: yes

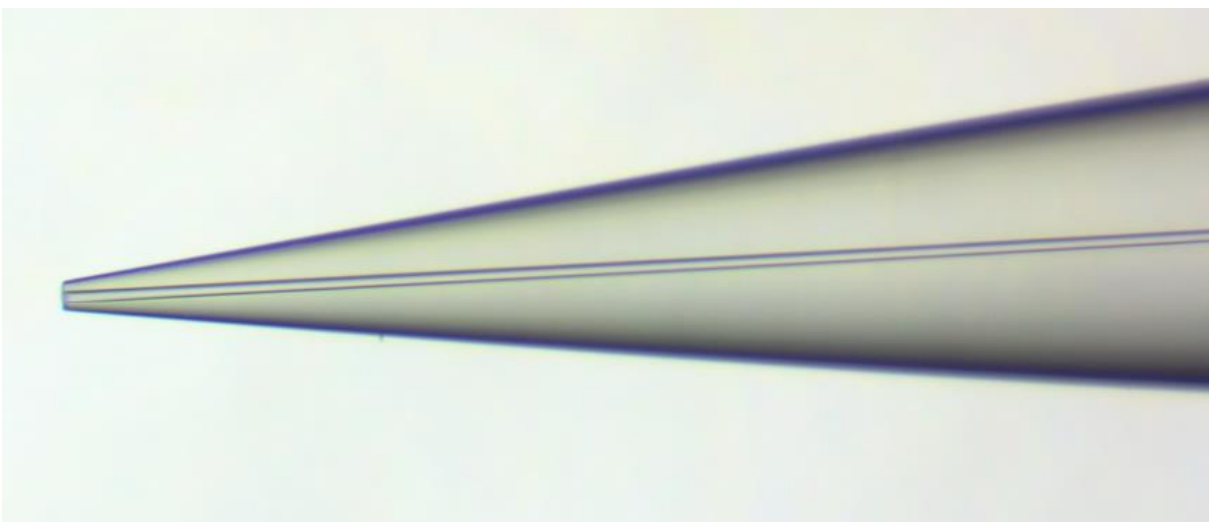
nano Emitter No.:	0		
			
Identification No.:	2020 10 05_3	Clogging test:	Pass
Sharp date:	2020 10 05	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	15.6°

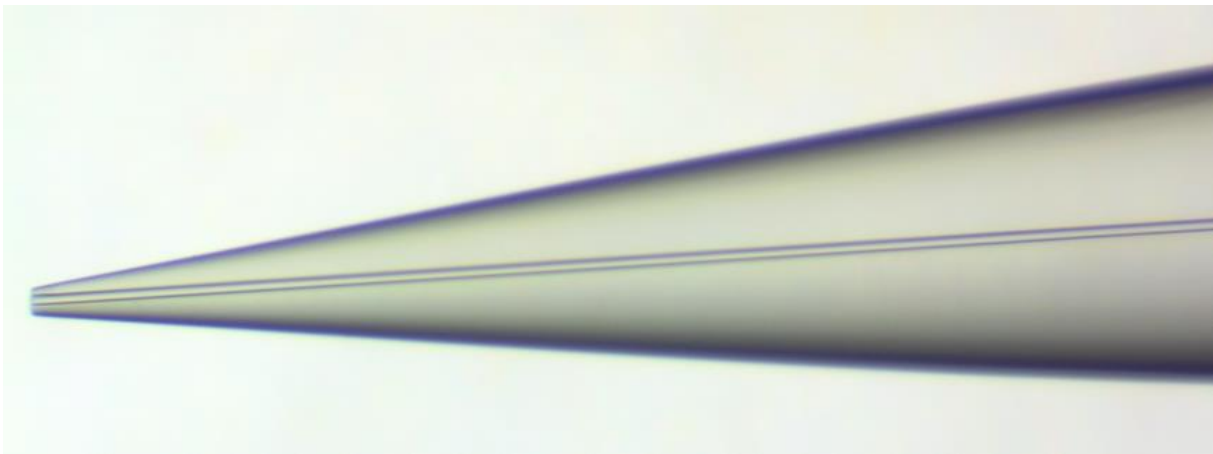
nano Emitter No.:	1		
			
Identification No.:	2020 10 05_2	Clogging test:	Pass
Sharp date:	2020 10 05	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	15.9°

nano Emitter No.:	2		
			
Identification No.:	2020 10 05_1	Clogging test:	Pass
Sharp date:	2020 10 05	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	15.5°

nano Emitter No.:	3		
			
Identification No.:	2020 10 04_16	Clogging test:	Pass
Sharp date:	2020 10 04	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	15.8°

nano Emitter No.:	4		
			
Identification No.:	2020 10 04_15	Clogging test:	Pass
Sharp date:	2020 10 04	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	15.1°

nano Emitter No.:	5		
			
Identification No.:	2020 10 04_14	Clogging test:	Pass
Sharp date:	2020 10 04	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	14.8°

nano Emitter No.:	6		
			
Identification No.:	2020 10 04_13	Clogging test:	Pass
Sharp date:	2020 10 04	Length:	50mm
Rinse:	HPLC H ₂ O	Angle:	15.4°