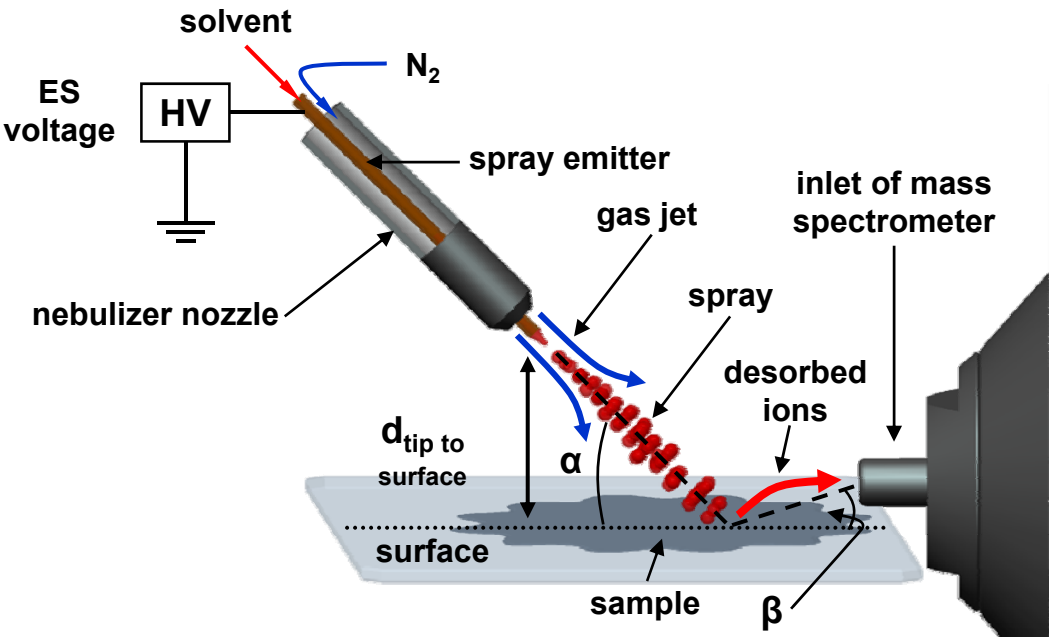
PROSOLIA

Omni Spray® Ion Sources
Desorption Electrospray Ionization

Understanding Omni Spray Ion Source Operating Parameters

A key aspect of the versatility of Omni Spray Ion Sources is the number of controllable operating parameters that provide scientists the ability to optimize the Desorption Electrospray Ionization (DESI) conditions to accommodate an "unlimited" range of surfaces that can be analyzed . This document describes each parameter involved in the operation the Omni Spray Ion Sources.



Parameter	Description
ES voltage	The electrospray voltage (ES) is the voltage setting that is applied to the solvent.
Solvent flow rate	The rate at which solvent is pumped out of the solvent capillary.
Gas pressure	The regulated pressure of the gas applied to the spray head.
Distance from tip to surface	The vertical distance from the end of the solvent capillary to the top of the disposable surface.
MS inlet temperature	The MS inlet temperature is the temperature setting of the mass spectrometer's inlet.
Spray Impact angle **(α)**	The angle at which the sprayed charge droplets from the outlet of the solvent capillary are directed towards the sample on the surface. This angle can be set on the Omni Spray® Ion Sources.
Collection angle **(β)**	The angle at which the desorbed ions leave the sample surface to enter the inlet of the mass spectrometer. This angle is calculated by approximating both the vertical distance from the center of the mass spectrometer inlet to the disposable surface and the horizontal distance from the inlet of the mass spectrometer to the actual spot on the sample being analyzed.
Solvent	The optimal solvent used to create the sprayed droplets is dependent on the composition of the sample being interrogated.
Surface material	In many cases, the sample to be analyzed must be placed on a surface prior to being interrogated. Contact us to learn more about optimal surface characteristics and the availability of Prosolia's line of sample surfaces.
Analysis time	The amount of time necessary to interrogate the sample in order to obtain a quality mass spectrum.

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