Simple, Smart, Sensitive.
The SICRIT® SC-20X ionization set is the flagship of Plasmion’s product portfolio. The set consists of the SICRIT® SC-20 control unit and the SICRIT® ion source. The SICRIT® SC-20 acts as high-voltage supply unit with an implemented microcontroller: the plasma is regulated and stable ionization conditions are ensured.

The SC-20 control unit also allows to drive additional SICRIT® modules for combination with sample enrichment/separation methods. The SICRIT® ion source is a plug&play fashioned ion source which can be easily mounted on the inlet of any API mass spectrometer by help of the respective SICRIT® MS interface. The ion source is designed for direct online-sampling of the gas phase in front of the MS inlet (for direct ambient screening) as well as for transfer of a defined sample into the MS by the provided 6 mm Swagelok® tube fitting.

SICRIT® Technology
The SICRIT® (soft ionization by chemical reaction in transfer) is the first real flow-through soft ionization technique for API MS instruments. The patented design of the ion source converts any MS into a sensitive and selective electronic nose, opening unlimited online-measurement capabilities to your MS. Using the SC-20X ionization set, direct MS-based online gas-phase measurements as well as MS measurements in combination with enrichment and separation techniques are possible.

SICRIT® Advantages
• Adaptable to all available API MS instruments
• High sensitivity (sub-ppt)
• Broad ionization range
• No sample preparation and ionization tuning required
• Robust 24/7 operation
• Combinable with HPLC, GC, SPME and LA
• Expert manufacturer support

Intended Fields of Application
The SICRIT® SC-20X ionization set is intended for laboratory use, where the “all in one”-approach of the design shows unique benefits in comprising unmatched sensitivity, flexibility and robustness in one technique.
Technical Data and Specifications

**SICRIT® Control Unit SC-20**

- **Dimensions / Weight**: 250 x 180 x 80 mm / 2.4 kg
- **Supply Voltage**: 220-240 V, 50-60 Hz, 150 W
- **High Voltage Output Max.**: 2 x 750 Vrms, (resp. 2000 Vpp (Volts peak-to-peak)) 10.0 kHz, 0.35 W
- **Modules Output**: 220-240 V, 50-60 Hz, 100 W
- **Operation Conditions**: 5 °C to 40 °C; < 80% RH (non-condensing).

**SICRIT® Ion Source**

- **Dimensions / Weight**: 45 x 20 x 20 mm / 150 g
- **Supply Voltage**: 0-1500 Vrms, 10.0 kHz, 0.35 W (supplied by the control unit)
- **Operation Conditions**: 5 °C to 60 °C surface temperature; < 80% RH (non-condensing)
- **MS Interface Temperature**: < 275°C
- **Maximum Gas Temperature**: Flow-through: –20 °C to 100 °C; < 80% RH (non-condensing)
- **Possible Carrier Gases**: Air, N₂, CO₂ (contact the manufacturer for further information)
- **Flow Rates**: 0.5 ± 0.1 L/min (Type A-05)
  1.0 ± 0.2 L/min (Type A-10)
  1.5 ± 0.3 L/min (Type A-15)

**Further Reading**

**Technical Note**

- **TN_01**: SICRIT®: Soft Ionization by Chemical Reaction in Transfer

**Application Notes**

- **AN_01**: Chemical Warfare Agents - Direct SICRIT® MS Analysis
- **AN_02**: Coffee Aroma Profiling - Power of Direct SICRIT® MS Analysis (available soon)

**Product Note**

- **PN_03**: SICRIT® GC/SPME Module

©2017 Plasmion GmbH. All rights reserved.
FFS PN_02_09/17