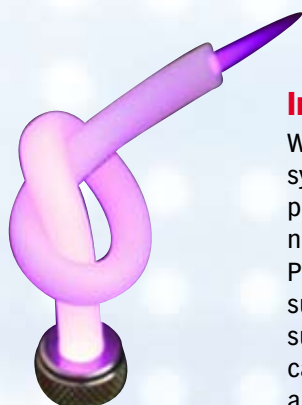
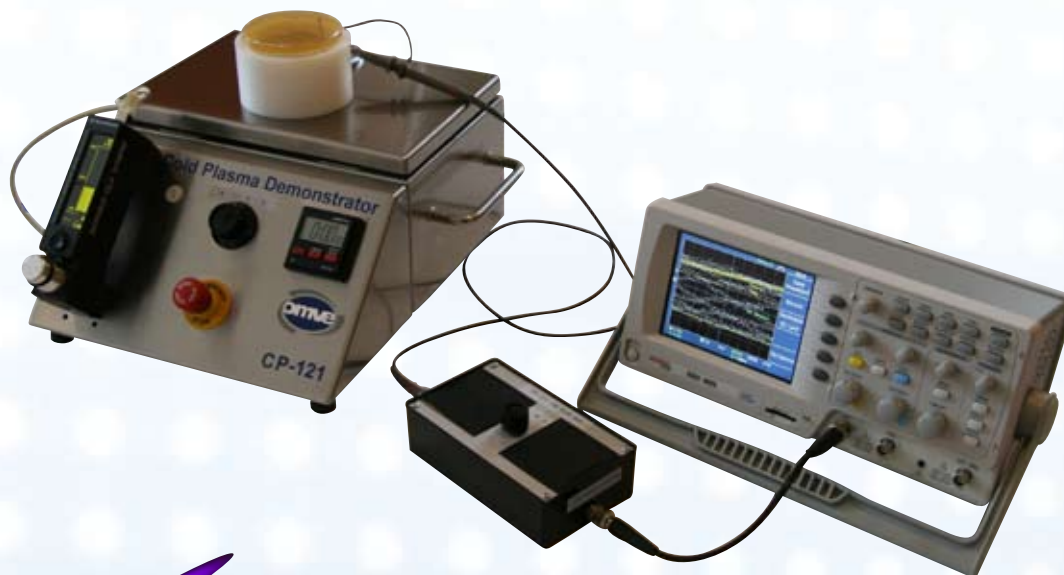


CP121: Cold Plasma Demonstrator

Get acquainted with Cold Plasma

with novel applications and advanced diagnostics



Introduction of the OMVE CP121 Cold Plasma Demonstrator

With the OMVE CP121 Cold Plasma Demonstrator you have a reliable and robust system that gives you maximum possibilities to learn and understand the great possibilities of Cold Plasma's. The demonstrator is capable to produce a jet of nitrogen plasma without the need of a vacuum at temperatures as low as 40°C. Plasma can be used to treat heat liable surfaces of polymer packaging materials as such PP, PE and PET without the risk of melting or deformation. By enhancing the surface energy using cold plasma surface properties can be altered and surfaces can be decontaminated. This versatile plasma unit accepts nitrogen, helium or even air as carrier gases while the power and gas consumption are spectacular low!

Study the redox chemistry that occurs inside the cold flame using iodine starch paper or change polymer surfaces from hydrophobic to hydrophilic. Challenge the laws of thermodynamics: learn all about the Overhauser effect and extent the 2 cm cold plasma flame up to 3 meters in length.

Identify the molecular content of the plasma and measure the electron temperature using the optional advanced Molecular Diagnostic kit **CP121-150**. Have a detailed look at the electron transfer processes that occurs inside your plasma and measure electron temperatures as high as 30.000°K.

This rugged plasma system was designed to determine the inactivation kinetics of various kind of micro-organisms at highly reproducible conditions. Do not invest your valuable time in just another plasma. Rely on the CP121 that is operated in leading microbiology laboratories around the globe against traceable standards. Boost your learning curve and find the optimum conditions to eliminate your target organisms at wetted or dry conditions using the microbiology option **CP121-200**.

Features	Benefits
<ul style="list-style-type: none"> • Robust design • Suitable for several gasses • Didactic tool • Study decontamination in a dry environment • Advanced diagnostics 	<ul style="list-style-type: none"> • Reliable and durable system • Shortens your learning curve • No vacuum required • Low gas consumption • Reproducible results

Easy in use

The Cold Plasma Demonstrator was constructed with maximum didactic assistance in mind. It is really easy to learn all there is to learn about cold plasma. Controls and main settings are easily accessible. The system is readily started by a single button. Anyone can operate the CP121 within a minimum of time. Learn about the thermodynamic properties of electrons and use this knowledge in practice. All you need is a gas supply of approx. 300 L/hr of the carrier gas under investigation.

Easy to operate and maintain

Set your gas flow and turn on your plasma. A programmable timer is included to ensure that after the preset time of exposure the plasma is automatically shut down. Because of the low power consumption of the plasma, the electrode that is contained inside the unit ensures many hours of stable operation without the need of cleaning and cooling. In case that you still want to refresh your electrode: simply cut the tip of the wire electrode and shift it some more through.

Configuration

The basic unit consist of a plasma generator that is operated using a programmable timer. The plasma is available as a jet into open air.

Optional accessories

CP121-100 Digital gas flow regulator

CP121-150 Molecular diagnostics and electron temperature measurement

CP121-200 Agar plate dish holder with integrated electrodes (autoclavable)

Specifications

Service unit	
Plasma nozzle	6mm
Carrier gas	N2/Helium/Air
Gas temperature	Typ. 40°C
Electron temperature	10.000 - 30.000°K
Plasma power	1W
Materials	
Cabinet	SS316
Electrode	Cu
Dimensions	
W x D x H	300 x 200 x 150mm
Weight	Approx. 7kg
Utilities	
Electrical	240VAC/2A
Carrier gas	Typ. 300L/hr