



PurePLATE MCS™

Microplate Cleaning System

Upcycle Laboratory Plastic and Save the World (And Money)

PurePLATE MCS uses our patented plasma cleaning process to clean microplates for extended reuse allowing Pharma and Biotech labs to **protect against shortages, achieve better science** by reducing assay variation, and **reduce environmental waste.**



PurePLATE MCS Components: Plasma Module, Rinse Module, Communication Module and PlasmaCharger

- **Effective.** PurePlate MCS uses a combination of liquid wash and cold-plasma exposure to clean used assay plates.
- **Versatile.** Any microplate with a standard SBS footprint up to 44 mm can be cleaned.
- **Sustainable.** Net environmental impact creates a greener footprint for laboratories.
- **Fast.** PurePlate MCS can clean 50-55 plates / hour.
- **Smart.** Components are modular and self-monitoring and software is very intuitive:
 - Adapts to your cleaning requirements
 - Integrated API commands are standard
- **Ready.** Power up, prime and operational in less than 5 minutes.
- **Easy.** Designed to be user maintained. A majority of maintenance or repair issues can be supported remotely by IonField in under 30 min.
- **Economic.** Per plate processing costs are ~ \$1 each.
- **Timely.** The pandemic continues to require screening services across the country and globally

Proven in Pharma and Biotech labs to completely remove:

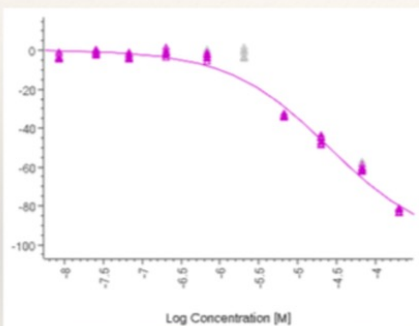
- ✓ DNA, RNA, siRNA, mRNA, and other genomic material
- ✓ Small molecules in DMSO
- ✓ Proteins, enzymes and any other biomolecule
- ✓ Complete organisms and cellular debris of all types
- ✓ Ag genomic and other samples may need pre-wash

...from all commonly used screening and optical microplates.

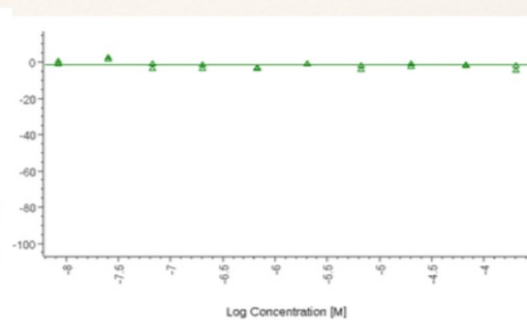
Plasma Cleaning Also Allows for Significant Reuse

Beta Test Results
Plates were run with 59 compounds from several libraries
No compound exhibited any carryover

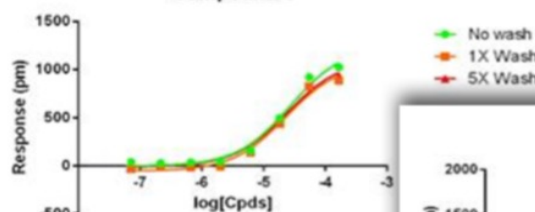
NewPlate with Compound



Same Plate - Standard PlasmaKnife Process



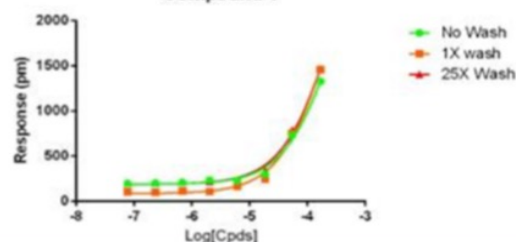
Compound 1



384

1536

Compound 1



Specifications

Rinse Module

- Width: 14.7"
- Height: 10.5"
- Depth: 34.5"

Plasma Module

- Width: 14.0"
- Height: 20.5"
- Depth: 32.0"

PlasmaCharger

- Width: 11.1"
- Height: 9.1"
- Depth: 19.6"

Frequently Asked Questions

How many microplates can be processed over the full life cycle of the Microplate Cleaning System (MCS)?

An MCS in operation 8 hours a day will process approximately 1750 microplates. Over a year, that is approximately 80,000 microplates (allowing time for maintenance and inspection of components). We estimate the full life cycle being not less than 5 years or 500,000 microplates if properly maintained and serviced.

How much energy is used for the operation?

The system's electrical use ranges from 400 watts when the system is on but not running microplates to approximately 2100 watts if every component were in operation (which can't actually happen). Assuming an average wattage over the entire run time of 1500 watts, the 8-hour power consumption would be 12 kWh.

What material is the Microplate Cleaning System made of (~first 80%)?

The outside cases of the modules and internal structural components are all made from aluminum. They constitute close to 80% of the product weight. Generally, sheet aluminum and aluminum parts are recycled as industrial scrap (which is a different process than drink containers) and reused.