

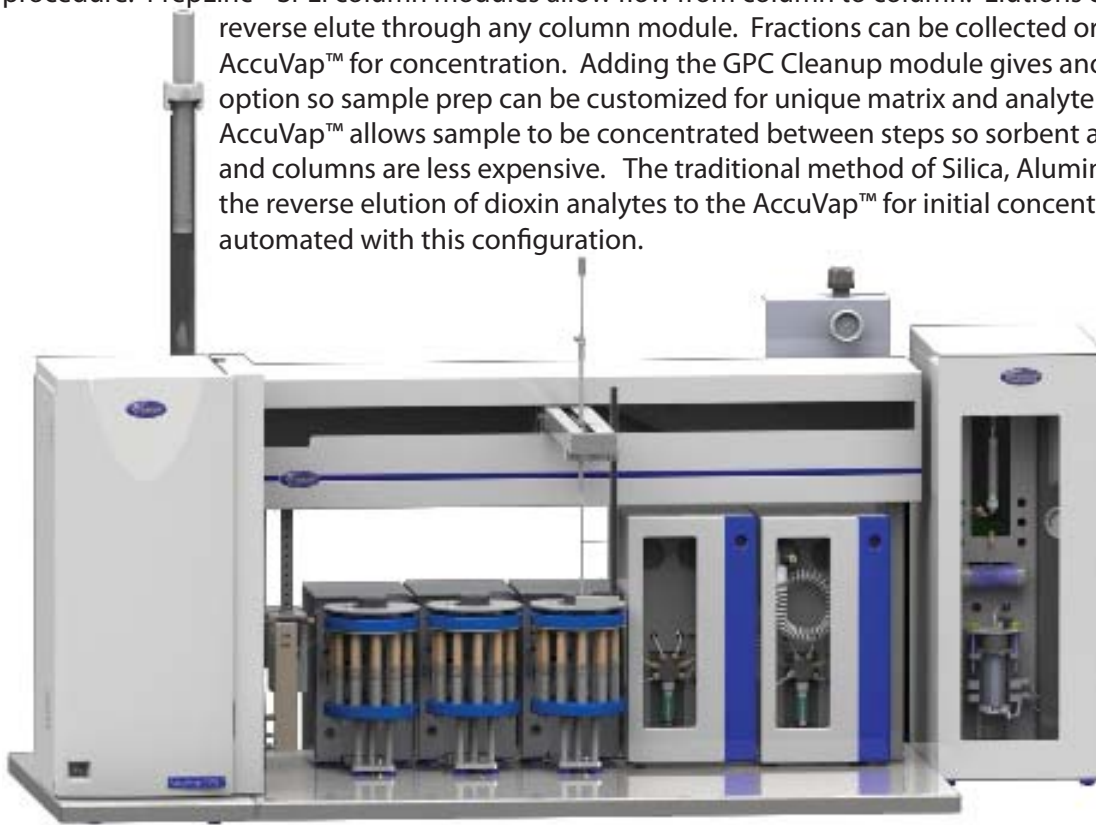
# PREPLINC

## Modified POPs Cleanup System

### The PrepLinc™ Modified Dioxin and Persistent Organic Pollutants Cleanup

**System** from J2 Scientific automates the multi-step Dioxin cleanup

procedure. PrepLinc™ SPEi column modules allow flow from column to column. Elutions can flow through, bypass or reverse elute through any column module. Fractions can be collected or transferred to the AccuVap™ for concentration. Adding the GPC Cleanup module gives another cleanup technique option so sample prep can be customized for unique matrix and analyte situations. Adding the AccuVap™ allows sample to be concentrated between steps so sorbent amounts can be decreased and columns are less expensive. The traditional method of Silica, Alumina and Carbon cleanup with the reverse elution of dioxin analytes to the AccuVap™ for initial concentration is completely automated with this configuration.



- Fractionate samples for the analysis of:
  - PCBs
  - PBDEs
  - PCDDs
  - PCDFs
- SPE Columns from many manufacturers are compatible, even pack your own.

#### Cartridge Compatibility

Uses cartridges from 1mL to 15mL, plus many specialty and flash columns. Program multi-column methods, eluting directly from one column to the next.

#### Concentrate Between Steps

The AccuVap™ module provides the necessary sample concentration between each cleanup step to achieve unattended Dioxin sample preparation.

#### Reverse Elution

The only automated SPE system to offer reverse elution through any cartridge at any stage in the method.

#### Positive Pressure

The use of positive pressure sample injection and solvent elutions is precise and repeatable. Pressure monitoring protects samples & equipment..

#### GPC Cleanup

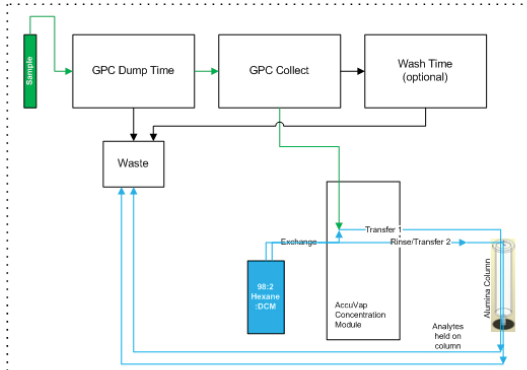
The PrepLinc™ GPC Module with Direct Inject gives the option to use this bulk cleanup step to replace or enhance other traditional cleanup steps specific to different matrices.

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**J2 SCIENTIFIC**

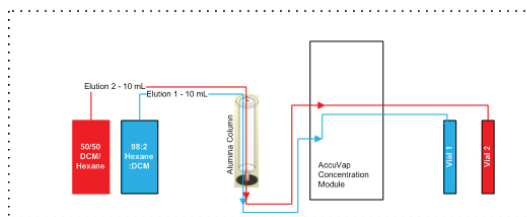
## Cleanup of various matrices for PCB and PCDD/F compounds



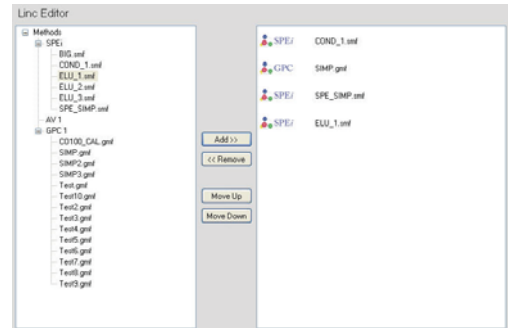
Phase 1  
 GPC Cleanup  
 Collect Fraction Concentrated & Exchanged to Hexane  
 Transferred onto Carbon column in two 2mL transfers  
 Analytes held on column  
 Interferences to waste

Using the Linc Editor in the software, four different methods involving different modules can be linked to run together as one method.

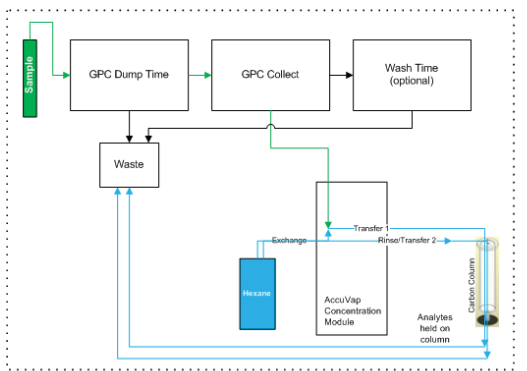
For this application we have a methods to (1) Condition the alumina cartridge; (2) GPC Cleanup to AccuVap™ and out to SPE cartridge; (3) Elution through the same SPE cartridge to AccuVap™ and collected in a vial; and (4) Elution through the same SPE cartridge with a different solvent to AccuVap™ and collected in a different vial.



Phase 2  
 Elute thru Alumina with solvent 1, concentrate and collect PCBs in vial 1.  
 Elute thru Alumina with solvent 2, concentrate and collect PCDD/Fs in vial 2.  
 Final concentration by nitrogen blow-down



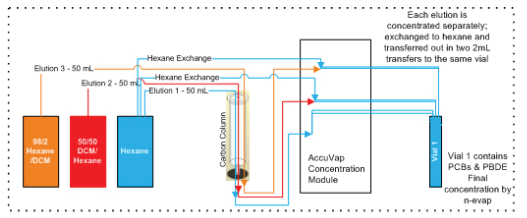
## Cleanup of various matrices for PCB, PBDE and PCDD/F compounds



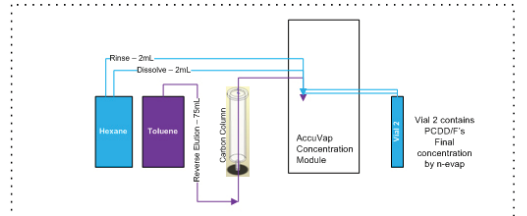
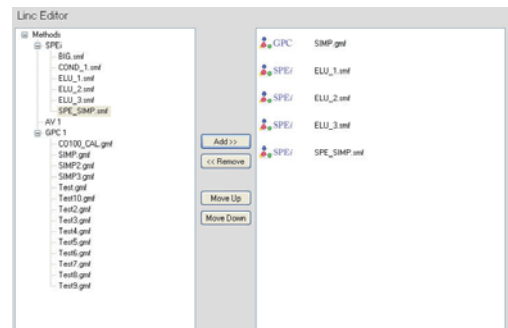
Phase 1  
 GPC Cleanup  
 Collect Fraction Concentrated & Exchanged to Hexane  
 Transferred onto Carbon column in two 2mL transfers  
 Analytes held on column  
 Interferences to waste

Using the Linc Editor in the software, five different methods involving different modules can be linked to run together as one method.

For this application we have a methods to (1) GPC Cleanup to AccuVap™ and out to SPE cartridge; (2) Elution through same SPE cartridge to AccuVap™ and collected in a vial; (3) Repeat Step 2 with different solvent to collect different analytes; (4) Repeat step 2; and (5) Reverse elution through same SPE cartridge to the AccuVap™ and collected in a separate vial.



Phase 2  
 Three elutions through Carbon column to remove non co-planar PCBs & PBDEs. Each elution concentrated & exchanged to Hexane  
 Transferred to same vial in two 2mL transfers  
 Final concentration & Analysis



Phase 3  
 Reverse elution with toluene through carbon column to remove co-planar PCBs & PCDD/Fs  
 Concentrated to dryness  
 Dissolved in 2mL Hexane & transferred Chamber rinsed with 2mL Hexane and transferred  
 Final concentration & Analysis