ON-LINE MONITORING SYSTEM

APK 2950W

ON-LINE VOCs MONITORING SYSTEM FOR WATER

The APK2950W is an Online Monitoring System for VOC's in water. This system is normally installed on site and continuously analyzes samples. All the procedures, including sampling, analysis and data processing, are fully automated and it provides highly reliable data. This all−in−one system is designed for use with river, lake and wastewater monitoring applicas tions.

MEMBRANE, SPARGER EXTRACTOR

The effects of moisture on Purge & Trap and Headspace can lead to a decrease in reliability of the test result, system pollution by high−concentration samples, and the contamination of the flow−line caused by micro−organisms and foreign substances in the water, which can significantly reduces productivity and costs a lot to recover it. Membrane and the Sparger Extractor system is a breakthrough preprocessing and the analysis system that blocks the above pollutants. Especially, the Membrane Extractor can be used to eliminate the effects of moisture by using hydrophobic membranes, thus producing stable analysis data.

PATENT

- 10−1109644 : Water quality analysis system
- 10−1066418 : Improved sample pretreatment unit applied to low temperature concentration of gas phase material
- 10−1134068 : A sampling analysis instrument using super low−temperature concentration system

SPECIFICATION

SPECIFICATIONS		
Cooling type	Peltier	
Trap low Temp.		-25°C
Trap higth Temp.		400°C
Valve Heat Temp. (Oven)		Max. 200°C
Transfer Line	Silco-treated Line	Max. 250°C
		Silco Steel 1/32"
Desorption Temp. (Sorbent Tube, Focusing Trap)		Max. 400°C
Focusing trap	Glass	6mm(O.D), 2mm (I.D), 110mm(L)
		Absorbents may vary depending on target sample
Dimension	680 x 690 x 1200 (W x D x H mm)	
Control	PC	APK Control II
Power		220VAC, 50/60Hz, 3KW, 15A

Thermal Desorption

Conditioning

Dilution system

Another Solutions

Online monitoring

Partners

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APPLICATION

- **Sample**

  Standard (60compounds including m/p–Xylene)

- **APK2950W On–Line Monitoring System for Water**

  Extraction Method : Purge & Trap

  Focusing Trap : Multi–bed for water samples

  Valve Oven Temperature : 180℃

  Sample Line Temperature : 50℃

  Sparger Volume : about 80mL

  Sparger Temperature : 40℃

  Purge Flow Rate : about 80mL/min with N$_2$

  Water Vapor Removal : Nafion type (APK1300S)

  Focusing   : −20℃ for 20 min

  Desorption : 280℃ for 1 min

  Injection : 320℃ for 5 min

  Transfer Line Temperature : 180℃

  Transfer Line Material : SilcoSteel 1/32″ (Max. 200℃)

- **Gas chromatograph (7890A, Agilent)**

  Oven temperature : 35℃, 10min → 4℃/min → 200℃, 20min
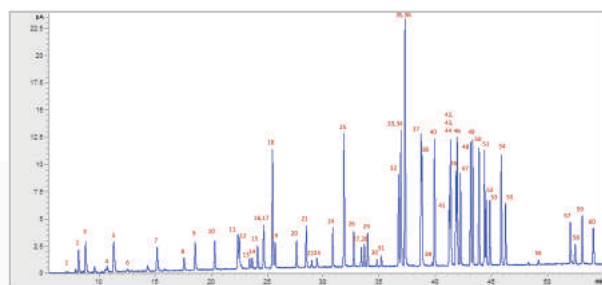
  Analytical Column : VB–624 (60m × 0.32mm × 1.8μm)
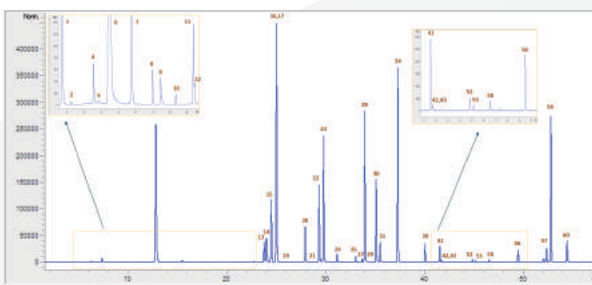
  Column Flow : 1.0 mL/min

  Split Ratio 10 : 1

  Detector : FID (Flame Ionization Detector) and ECD

  　　　　　(Electron Capture Detector)

- GC/FID : Chromatogram of the Standard Sample (1 μg/L)

- GC/ECD : Chromatogram of the Standard Sample (1 μg/L)

COMPOUNDS					
01	Dichlorodifluoromethane	21	1,2-Dichloropropane	41	1,1,2,2-Tetrachloroethane
02	Chloromethane	22	Dibromomethane	42	Bromobenzene
03	Vinyl chloride	23	Bromodichloro-methane	43	1,2,3-Trichloropropane
04	Bromomethane	24	Toluene	44	n-Propylbenzene
05	Chloroethane	25	cis-1,3-Dichloropropene	45	2-Chlorotoluene
06	Trichlorofluoro-methane	26	trans-1,3-Dichloropropene	46	1,3,5-Trimethylbenzene
07	1.1-Dichloroethene	27	1,1,2-Trichloroethane	47	4-Chlorotoluene
08	Dichloromethane	28	Tetrachloroethene	48	tert-Butylbenzene
09	trans-1,2-Dichloroethene	29	1,3-Dichloropropane	49	1,2,4-Trimethylbenzene
10	1,1-Dichloroethane	30	Dibromochloromethane	50	sec-Butylbenzene
11	2,2-Dichloropropane	31	1,2-Dibromo-Ethane	51	p-Isopropyltoluene
12	cis-1,2-Dichloroethene	32	Chlorobenzene	52	1,3-Dichlorobenzene
13	Bromochloro-methane	33	Ethylbenzene	53	1,4-Dichlorobenzene
14	Chloroform	34	1,1,1,2-Tetrachloroethane	54	Butylbenzene
15	1,1,1-Trichloroethane	35	m-Xylene	55	1,2-Dichlorobenzene
16	1,1-Dichloro-1-propene	36	p-Xylene	56	1,2-Dibromo-3-chloropropane
17	Carbon Tetrachloride	37	Styrene	57	1,2,4-Trichlorobenzene
18	Benzene	38	o-Xylene	58	Hexachlorobutadiene
19	1,2-Dichloroethane	39	Bromoform	59	Naphthalene
20	Trichloroethene	40	Cumene	60	1,2,3-Trichlorobenzene