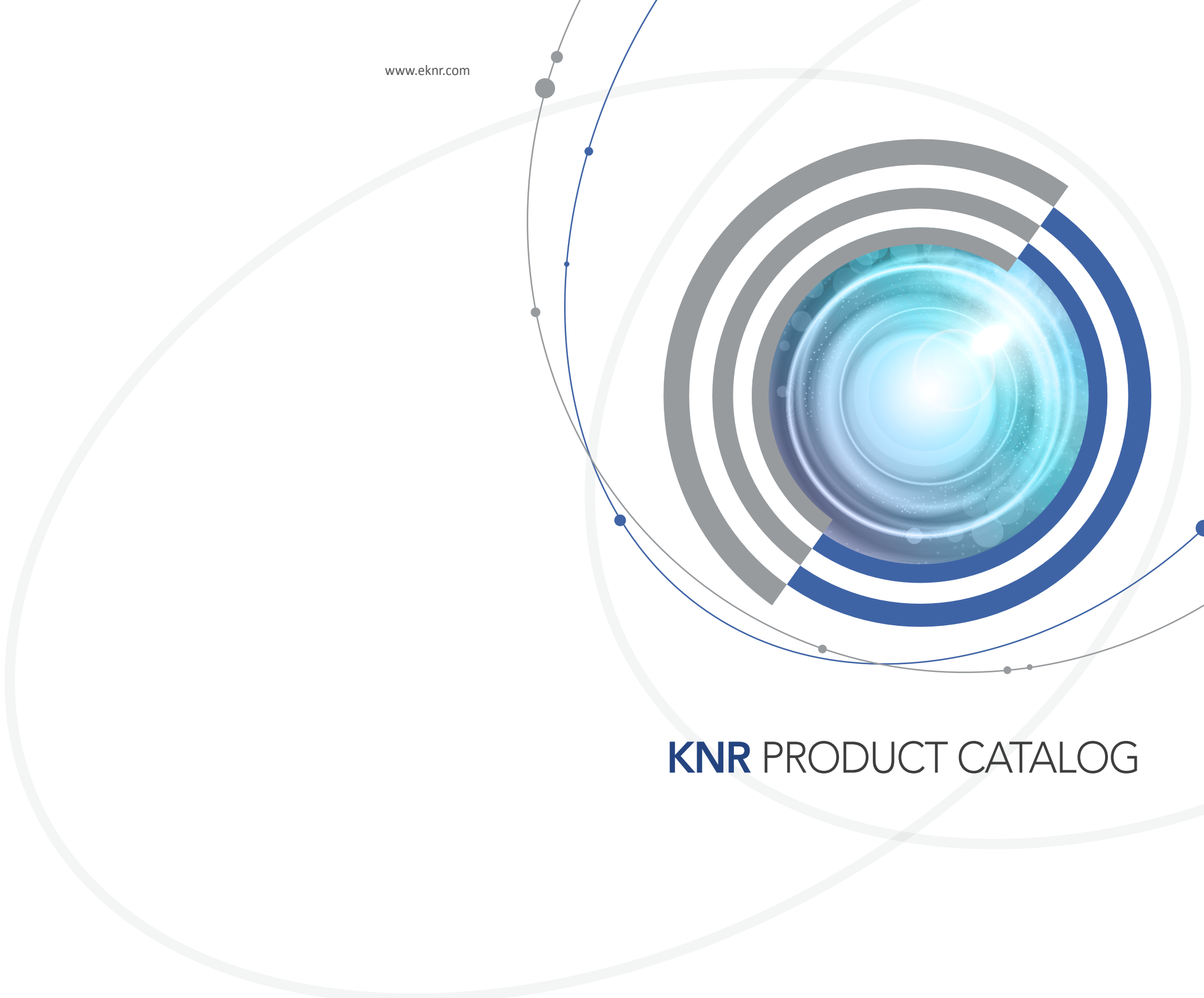


PRODUCT

- APK1200 Tube Conditioner
- APK1200C Canister Cleaner
- APK2350 Thermal Desorber
- APK2360 Automated Desorption Unit
- APK2600 Multi Sampler
- APK2600C Canister Multi Sampler
- APK2800 TGA Interface
- APK2950 Online VOC Monitoring System
- APK6100 Standard Gas Dilutor (MFC)
- APK6100L Liq. Standard Injector
- APK6300 Micro Chamber
- APK8200 Trace GHG Thermal Desorber
- Methanizer
- Flux Chamber
- APK Sorbent Tube
 - Tenax-TA
 - Tenax-GR
 - Carbosieve S-III
 - Hayesep porous polymers



KNR PRODUCT CATALOG

We guarantee Best Solutions, Best Products, Best Services

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APK2350

Thermal Desorber

System features

- Collected on a tube (1/4" OD, 3.5" length) can be injected to GC using the APK2350 TD.
- Cooling Method : Peltier type (Below : -20°C)
- Compatibility with various GC.
- Online system function is an optional.
- User friendly PC control.
- Production of high reproducibility of experimental data by completely eliminating "Cold point".




APK2600

Multi Sampler

APK2600 Multi Sampler is an auto-sampler for sampling bag or canister. This equipment's line such as Sulfinert and Electroformed Nickel. APK2600 Multi Sampler automates the analysis up to 15 samples. APK2600 Multi Sampler can also repeat the analysis and sampling time control about each channels by PC software.

Specification

Sample port	15 Channels
Sample line material	EFNi® or Silco steel®
System control	PC Software
Signal I/O	GC Ready in & TD Start out
Power	220VAC, 50/60Hz



APK2360

Automated Desorption Unit



APK2360 Automated Desorption Unit is compatible with APK2350 to analyze the adsorption tube (1/4" O.D. X 3.5") up to 24 automatically. The sample transfer line between APK2350 and APK2360 is kept on certain temperature is operated by APK Control Program and user friendly.

Specification

Sorbent Tube	24 channels
Desorption Temp.	Max. 400°C
T-Line Temp.	Max 250°C
Sample Line	Sulfinert®
Control	APK Control Program



APK2600C

Canister Multi-sampler

APK2600C Canister Multi-sampler is an auto-sampler for canister. Up to 8 canisters can be installed on it. APK2600C Multi-sampler can also repeat the analysis and sampling time control about each channel by PC software.

Specification

Sample port	8 Channels (more than 8 Channels are available)
Sample line material	Silco-steel® / PTFE / EFNi®
Suitable canister capacity	Up to 6L Canister
System control	PC software
Signal I/O	GC ready in & TD start out
Power	220VAC, 50/60Hz

APK1200C

Canister Cleaner

The previous components will affect the analysis if the canister is not cleaned completely after using it. Canisters are evacuated and refilled with nitrogen or zero air multiple times to it is completely eliminated before reusing it. 4 canisters can be cleaned simultaneously with APK1200C.





APK6100

Standard Gas Dilutor (MFC)



APK 6100 is an instrument designed for standard gas dilution to low concentration. Basically this system uses Mass Flow Controller for gas dilution. All MFCs wetted part is treated EP. This is suitable for Tedlar bag and sorbent tubes. APK 6100 can dilute not only gas standard but also liquid sample. Liquid sample can be injected into an installed injection port that is able to heat max. 200°C. The system is controlled by PC software.

Specification

Dilution ratio	5:1 ~ 1,500:1
Method	Mass Flow Controller (1 or 3ea)
Gas Container	Sorbent Tube / Tedlar Bag
Power	220VAC, 50/60Hz
Option	Liquid sample vaporizer
Control S/W	Set-up dilution ratio Method save

APK1200 Tube Conditioner

KNR offers APK-1200 tube conditioner for Adsorbent tubes (1/4"ODx3.5" or 7.1" length). It is suitable for any tubes. 12 tubes can be conditioned simultaneously with APK-1200. APK-1200 tube conditioner includes everything you need for conditioning tubes.

System features

• Automated System

If you press START button, tube holder goes into the oven and cleaning will be proceeded automatically. It is possible to program the temperature with 10 steps. And cleaning automatically stops after the set time elapses.

• Faster cooling time

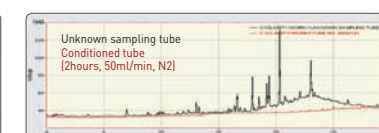
When conditioning is finished, tube holder goes down and get cooled. It takes about 5~7 minutes from conditioning temperature to ambient temperature.

• Easily detached and attached

The fittings do not need loosening and locking when put the tube into holder. It allows you to simply fit tube into the fitting and remove because VITON O-ring is included.

• Designed to save gas

Only the gas flows when the tube inserts on the port of tube holder.



APK6100L

Standard Injector



• Purpose of use

Quantitative and Qualitative analysis for target material. It can be applied to Thermal Desorption Method Use liquid STD material / Quantitative and Qualitative for unknown sample.

• Strong points

1. Evaporate the certain concentration and amount of liquid sample on certain temperature. Then, adsorbing it into the adsorption tube.
2. Heating the injection port and wet position on Max. 200°C in order to minimize the contamination and cleaning itself.

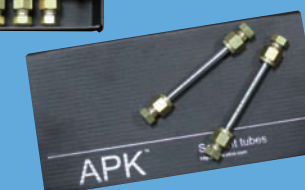
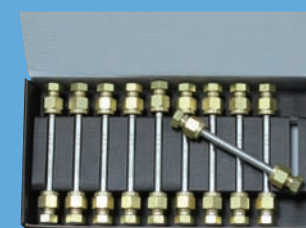
Components	Description [1]	Description [2]
Injection Port	1/8" Injector	Materials : SUS316 (Electroformed)
Injector Temp.	Max. 200°C	PID Control
Purge Gas	0~200 ml/min	N2 (Ball Type)
Dimension	W, H, D ; mm	250, 280, 200
Power	210~230 VAC	50/60Hz



APK Sorbent Tube

KNR supplies Sorbent tubes (1/4"O.D X 3.5"L) for Standard Thermal Desorber. The tube is filled with an adsorbent and each tube has its own serial number for user convenience.

The tube is conditioned on high temperature and then, both ends of tube is blocked by clean fitting with PTEF ferrules. Each lot is tested by Thermal Desorber and Gas Chromatograph to be make sure not to contain any impurity before we supply it.



Specifications

Tenax-TA	KT50601
Tenax-GR	KTG 50701
Carbosieve S-III	KTS 50801
Carbotrap-100	KTC51001
Carbotrap-30	KTC53001
Chromosorb 106	KTM 51061
Empty Tube	K4S T01
SUS Screen	KSS 001
SUS Spring	KSP 001
Brass Cap	KBC 001
Teflon Ferrule	KTF 001





APK2950W

Online Monitoring System for VOC in Water
– Sampling, Concentration and Analysis

- Membrane Extraction Module
- Sparger Extraction Module
- Target Material : VOCs
- Application : National Water Monitoring Station, Public Waste Water Disposal, River & Lake etc.



APK2950A

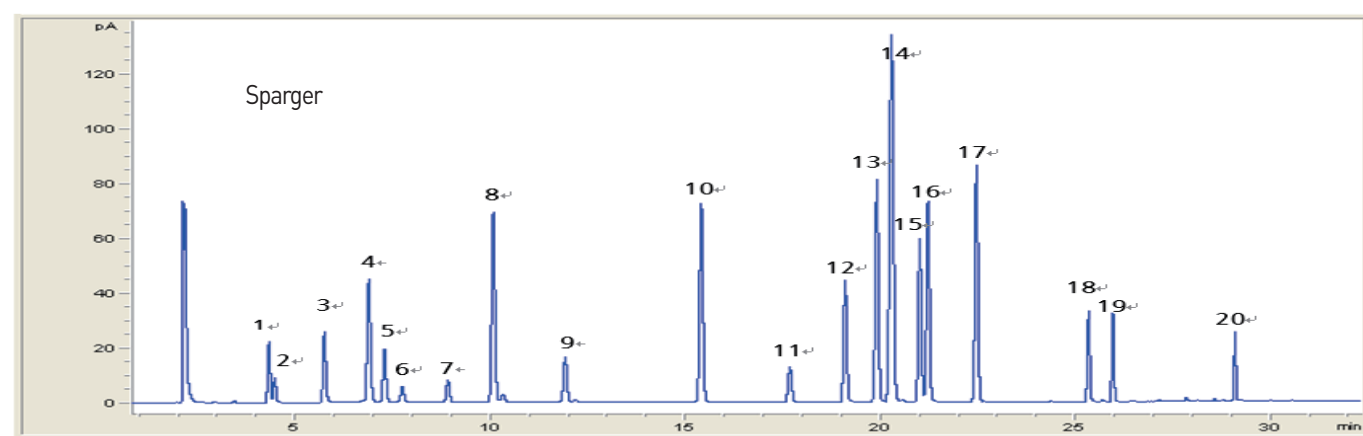
Online Monitoring System for VOC, Sulfur Compounds
and GHG etc in Ambient Air

Type of Target Material

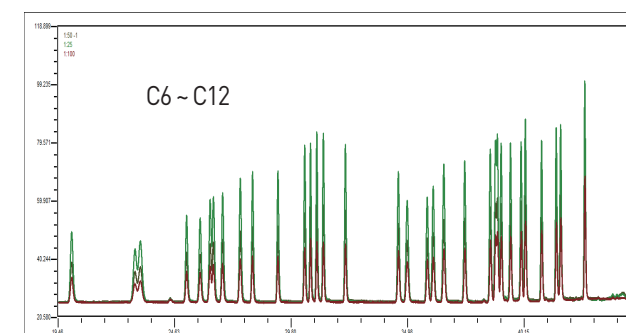
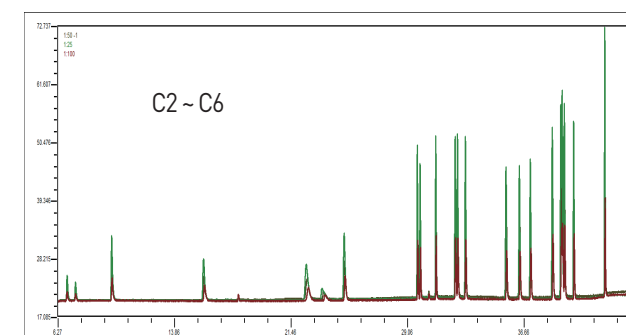
- V : PAMS, VOCs, etc.
- G : Green House Gas
- S : Sulfur Compounds

Type of Application

- V : Monitoring Station for PAMS & HAPs
- G : National Weather Center
- S : Monitoring Station for Sulfur & odour



No	Compounds Name	No	Compounds Name	No	Compounds Name	No	Compounds Name
1	1,1-Dichloroethene	6	Trichloromethane	11	Tetrachloroethene	16	o-Xylene
2	Dichloromethane	7	1,2-Dichloroethane	12	Chlorobenzene	17	(1-methylethyl)benzene
3	1,2-Dichloroethene	8	Benzene	13	Ethylbenzene	18	1,4-Dichlorobenzene
4	2-Chlorobuta-1,3-diene	9	Trichloroethene	14	m/p-Xylene	19	1,2-Dichlorobenzene
5	1,2-Dichloroethene	10	Methylbenzene	15	Phenylethene	20	Hexachlorobutadiene



No	Compounds Name	No	Compounds Name	No	Compounds Name	No	Compounds Name
1	Ethane	15	1-Pentene	29	2,3-Dimethylpentane	43	n-Nonane
2	Ethylene	16	cis-2-pentene	30	3-Methylhexane	44	Isopropylbenzene
3	Propane	17	2,2-Dimethylbutane	31	2,2,4-Trimethylpentane	45	n-Propylbenzene
4	Propylene	18	2,3-Dimethylbutane	32	n-Heptane	46	m-Ethyltoluene
5	Isobutane	19	2-Methylpentane	33	Methylcyclohexane	47	p-Ethyltoluene
6	n-Butane	20	3-Methylpentane	34	2,3,4-Trimethylpentane	48	1,3,5-Trimethylbenzene
7	Acetylene	21	Isoprene	35	Toluene	49	o-Ethyltoluene
8	trans-2-Butene	22	1-Hexene	36	2-Methylheptane	50	1,2,4-Trimethylbenzene
9	1-Butene	23	n-Hexane	37	3-Methylheptane	51	n-Decane
10	Cis-2-Butene	24	Methylcyclopentane	38	n-Octane	52	1,2,3-Trimethylbenzene
11	Cyclopentane	25	2,4-Dimethylpentane	39	Ethylbenzene	53	m-Diethylbenzene
12	Isopentane	26	Benzene	40	m/p-Xylene	54	p-Diethylbenzene
13	n-Pentane	27	Cyclohexane	41	Styrene	55	n-Undecane
14	trans-2-Pentene	28	2-Methylhexane	42	o-Xylene	56	n-Dodecane