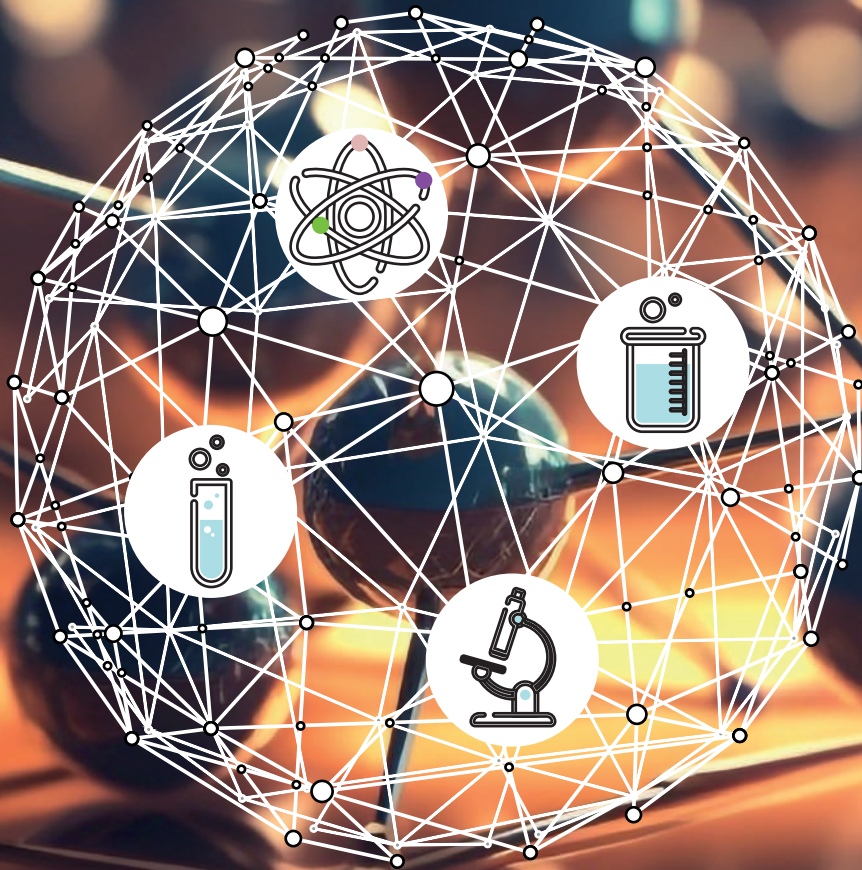


인증표준물질

Certified Reference Materials





중금속분석을 위한 시료전처리장비와 인증표준물질등 소모품 전문기업!



(주) 오디랩은 2008년 8월에 설립된 회사로 중금속분석에 사용되는 흑연블럭 산 분해장비인 에코프리 I, II, III 시리즈와 산 세척장치, 고순도 산 제조 장치, 유리분주기, ICP/ICP MS 소모품, 인증표준물질(CRM), 숙련도 평가물질 (PT) 등 을 제조, 수입판매하고 있습니다.

(주) 오디랩에서 제조 판매하는 흑연블럭 산 분해장비는 열선 가열판이나 마이크로웨이브의 단점을 보완한 제품으로 국내를 비롯하여 세계 7개국에 특허를 획득하였고 현재 해외로도 수출 중 에 있습니다.

또한 실험실에서 분석 데이터의 신뢰성확보를 위한 인증표준물질(CRM)과 표준물질(RM), 국제숙련도 물질을 전세계에서 수입하여 판매하고 있습니다. 인증표준물질은 고객이 찾으시는 제품을 탐색하여 드리고 있으며, 가장 근접한 제품으로 추천드리고 있습니다.

특히 유럽환경규제인 RoHS에 대응한 IEC62321시험법에 나오는 인증표준 물질을 국내 시험평가기관이나 국가기관에 공급하고 있으며, 환경부에서 실시하는 정도관리에 대응하여 LGC사에서 제공하는 환경관련 숙련도 물질을 공급하고 있습니다.

**저희 (주) 오디랩은 화학실험실의 동반자로서
분석의 재현성과 정확성, 신뢰성 확보를 위해
언제나 고객의 노력과 함께 하겠습니다**

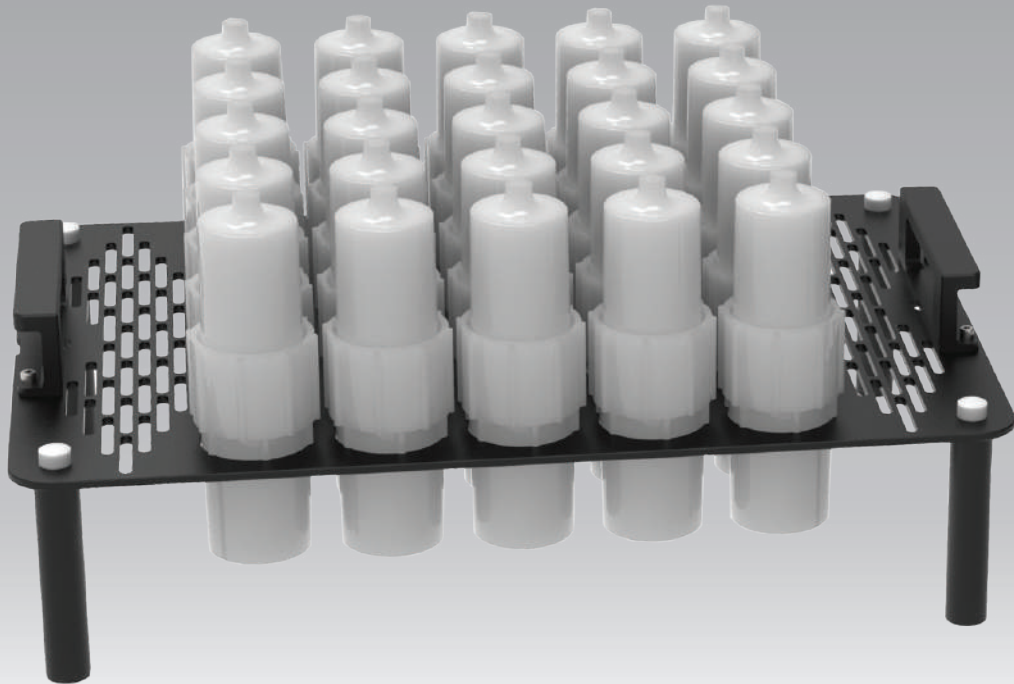
ODLAB

자동 산분해장비

ADS25



견적문의



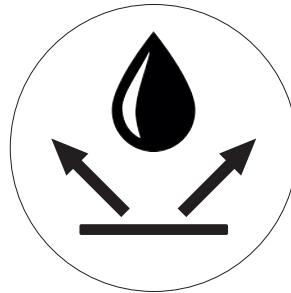
경량화 & 벤틸레이션

경량화 & 벤틸레이션 -



산순환 포집분해용기

산순환 포집분해용기 -



오염방지&내구성

오염방지&내구성 -



앱 연동 조작

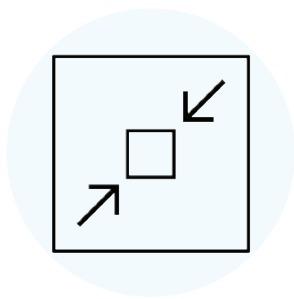
앱 연동 조작 -

이동 및 보관을 위해 플레이트를 타공디자인으로 경량화를 하였습니다 또한 타공을 통하여 원활하게 열기의 순환이 이루어 집니다.

좌우에 있는 리프트 장치로 산 순환 포집분해 용기 내부의 산을 가열 / 냉각 시켜서 사이펀 현상에 의해 리사이클 시켜 시료를 분해할 수 있도록 디자인 하였습니다.

SUS 재질사용 및 테프론 특수코팅을 하여 표면이 쉽게 오염되지 않도록 제작하였습니다. 또한 상부 가열부와 하부 전자제어부는 서로 격리, 밀봉되어 열 또는 산 증기로 인하여 전자제어장치가 손상되지않도록 되어있습니다.

20 Step 으로 가열 / 냉각 으로 분해조건을 프로그래밍 할 수 있으며, 앱을 사용하여 조절가능합니다.



컴팩트한 사이즈

컴팩트한 사이즈 -



오토메틱 리프팅

오토메틱 리프팅 -

메뉴얼 및 프로그래밍 기능으로 반복적인 가열 / 냉각을 할 수 있도록 리프팅 기능이 있습니다.



균일한 온도

균일한 온도 -

흑연 소재를 사용하여 균일한 온도를 제공하고 ($\pm 1^{\circ}\text{C}$ 온도편차를 갖는다) 제어는 0.2°C 로 제어된다.



수동 승강버튼

수동 승강버튼 -

리프트 장치를 수동버튼을 사용하여 상부 랙(Rack)을 상하로 움직여 사용자가 원할 시 용기의 상태를 언제든지 확인 할 수 있습니다.



GLASS EXPANSION
Quality By Design

ICP-OES / ICP-MS

모든 메이커 (애질런트, 씨모, 퍼킨..etc) 전제품



견적문의

Sludges and Paint

본 자료는 시기에 따라 제품 단종 및 수치의 변경이
있을 수 있으니 본사로 문의 부탁드립니다.

Sludges and Paint

Code	Product	Unit
ERM-CC144	SEWAGE SLUDGE The material consists of minimum 30 g of a homogeneous powder of sewage sludge, provided in an amber glass bottle closed with a polyethylene insert and a screw cap. Mass fraction based on dry mass / Certified value Total content As7.7 mg/kg Cd14.5 mg/kg Co6.5 mg/kg Cr168 mg/kg Cu348 mg/kg Fe32.9 mg/kg Hg5.9 mg/kg Mn352 mg/kg Ni91 mg/kg Pb157 mg/kg Zn0.98 mg/kg Aqua regia extractable content As7.7 mg/kg Cd13.3 mg/kg Co5.9 mg/kg Cr150 mg/kg Cu346 mg/kg Fe32.8 mg/kg Hg6.1 mg/kg Mn340 mg/kg Ni86 mg/kg Pb156 mg/kg Zn0.97 mg/kg	30 g
BCR-145R	SEWAGE SLUDGE (mixed origin) - Trace elements The sample consists of about 40 g of homogeneous, powdered sewage sludge (particle size < 90 µm) in brown glass bottles provided with a polyethylene insert and a screw cap. Mass fraction based on dry mass / Certified value Total content Cd3.50 mg/kg Co5.6 mg/kg Cu696 mg/kg Pb286 mg/kg Mn156 mg/kg Hg2.01 mg/kg Ni247 mg/kg Zn2122 mg/kg Aqua regia extractable content Cr307 mg/kg Cu707 mg/kg Pb282 mg/kg Ni251 mg/kg Zn2140 mg/kg Cd3.43 mg/kg Co5.3 mg/kg Mn145 mg/kg Hg1.99 mg/kg	40 g
BCR-146R	SEWAGE SLUDGE (mixed origin) - Trace elements The sample consists of about 50 g of powdered sewage sludge (particle size < 90 µm) from industrial origin in brown glass bottles provided with a polyethylene insert and a screw cap. Mass fraction based on dry mass / Certified value Total content Cd18.8 mg/kg Co7.39 mg/kg Cr196 mg/kg Cu838 mg/kg Hg8.6 mg/kg Mn323 mg/kg Ni70 mg/kg Pb609 mg/kg Zn3060 mg/kg Aqua regia extractable content Cd18.4 mg/kg Co6.5 mg/kg Cr174 mg/kg Cu831 mg/kg Hg8.39 mg/kg Mn298 mg/kg Ni65.0 mg/kg Pb583 mg/kg Zn3040 mg/kg	40 g

Sludges and Paint

Code	Product	Unit
BCR-088	SEWAGE SLUDGE The material consists of sterilised, dried and ground sewage sludge from a municipal waste water purification plant in an amber glass bottle under argon. The bottle contains about 10 g of powder and a small PTFE ball which has been added to facilitate the homogenisation prior to use. Additional information on the preparation is given in the certification report. Mass fraction based on dry mass / Certified value Pyrene3.50 mg/kg Benzo[a]anthracene5.6 mg/kg Benzo[a]pyrene696 mg/kg Benzo[e]pyrene286 mg/kg Benzo[b]fluoranthene156 mg/kg Benzo[k]fluoranthene2.01 mg/kg Indeno[1,2,3-cd]pyrene247 mg/kg Benzo[b]naphtho[2,1-d]-thiophene2122 mg/kg	10 g
BCR-677	SEWAGE SLUDGE (mixed origin) - Trace elements The sample consists of approximately 40 g of dried and heat sterilised sewage sludge in brown glass bottles with a polyethylene insert and screw cap. Mass fraction based on dry mass / Certified value 2,3,7,8-T4CDD (D48)1.51 ng/kg 1,2,3,7,8-P5CDD (D54)4.1 ng/kg 1,2,3,6,7,8-H6CDD (D67)235 ng/kg 1,2,3,7,8,9-H6CDD (D70)79 ng/kg 1,2,3,4,6,7,8-H7CDD (D73)3.5 µg/kg O8CDD (D75)12.7 µg/kg 2,3,7,8-T4CDF (F83)45 ng/kg 1,2,3,7,8-P5CDF (F94)24.8 ng/kg 2,3,4,7,8- P5CDF (F114)16.9 ng/kg 1,2,3,4,7,8-H6CDF (F118)14.5 ng/kg 1,2,3,6,7,8-H6CDF (F121)6.1 ng/kg 1,2,3,7,8,9-H6CDF (F124)0.84 ng/kg 2,3,4,6,7,8-H6CDF (F130)5.6 ng/kg 1,2,3,4,6,7,8-H7CDF (F131)61.6 ng/kg 1,2,3,4,7,8,9-H7CDF (F134)6.3 ng/kg O8CDF (F135)177 ng/kg	40 g
SRM-2569	Lead Paint Films for Children's Products Certified Values for SRM 2569 Lead Paint Films for Children's Products Level 1 Pb Mass Fraction<0.2 mg/kg Mass of Pb per Unit Area<0.02 µg/cm ² Paint Thickness40.17 ± 0.66 µm Level 2 Pb Mass Fraction85.0 ± 3.8 mg/kg Mass of Pb per Unit Area0.225 ± 0.043 µg/cm ² Paint Thickness22.9 ± 2.4 µm Level 3 Pb Mass Fraction314.4 ± 3.6 mg/kg Mass of Pb per Unit Area1.453 ± 0.073 µg/cm ² Paint Thickness39.4 ± 2.4 µm	8 sheets

Sludges and Paint

Code	Product	Unit
SRM-2570	Lead Paint Film for Building Surfaces (Blank) (Color: White) Certified value Pb <0.01 mg/cm ²	1 film
SRM-2571	Lead Paint Film for Building Surfaces (Nominal Pb 3.5 mg/cm ²) (Color: Yellow) A unit of SRM 2571 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, yellow-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2571, is also provided. Certified value Pb 3.58 mg/cm ²	1 + blank
SRM-2572	Lead Paint Film for Building Surfaces (Nominal Pb 1.6 mg/cm ²) (Color: Orange) A unit of SRM 2572 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, orange-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2572, is also provided. Certified value Pb 1.527 mg/cm ²	1 + blank
SRM-2573	Lead Paint Film for Building Surfaces (Nominal Pb 1.0 mg/cm ²) (Color: Red) A unit of SRM 2573 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, red-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2573, is also provided. Certified value Pb 1.040 mg/cm ²	1 + blank
SRM-2574	Lead Paint Film for Building Surfaces (Nominal Pb 0.7 mg/cm ²) (Color: Gold) A unit of SRM 2574 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, gold-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2574, is also provided. Certified value Pb 0.714 mg/cm ²	1 + blank
SRM-2575	Lead Paint Film for Building Surfaces (Nominal Pb 0.3 mg/cm ²) (Color: Green) A unit of SRM 2575 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, green-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2575, is also provided. Certified value Pb 0.307 mg/cm ²	1 + blank
SRM-2576	Lead Paint Film for Building Surfaces (Nominal Pb 5.6 mg/cm ²) (Color: Blue) A unit of SRM 2576 consists of a white polyester sheet, approximately 7.6 cm wide, 10.2 cm long, and 0.2 mm thick, coated with a single, blue-colored paint layer, approximately 0.04 mm thick. A blank, SRM 2576, is also provided. Certified value Pb 5.59 mg/cm ²	1 + blank
SRM-2579	Lead Paint Films for Building Surfaces (SRM 2570 through SRM 2575) A unit of SRM 2579a consists of a set of six coated polyester sheets, approximately 7.6 cm wide and 10.2 cm long. Five of the six sheets, SRM 2570 through SRM 2575, are coated with a single, uniform paint layer.	6 set

Sludges/Paint

Sludges and Paint

Code	Product	Unit
	Certified value (mg/cm ²)	
	SRM 2570 White (blank)< 0.001	
	SRM 2571 Yellow3.58 ± 0.39	
	SRM 2572 Orange1.527 ± 0.091	
	SRM 2573 Red1.040 ± 0.064	
	SRM 2574 Gold0.714 ± 0.083	
	SRM 2575 Green0.307 ± 0.021	
SRM-2580	Powdered Paint (Nominal Mass Fraction of 4 % Lead)	30 g
	A unit of SRM 2580 consists of 30 g of powdered paint material, 99+ % of which passes a 100 µm (No. 145) sieve	
	Certified value	
	Pb 4.34 % ± 0.01 %	
SRM-2581	Powdered Paint (Nominal Mass Fraction of 0.5 % Lead)	35 g
	A unit of SRM 2581 consists of 35 g of powdered paint material, 99+ % of which passes a 100 µm (No. 145) sieve.	
	Certified value	
	Pb 0.449 % ± 0.011 %	
SRM-2582	Powdered Paint (Nominal Mass Fraction of 200 mg/kg Lead)	20 g
	A unit of SRM 2582 consists of 20 g of powdered paint material, 99+ % of which passes a 100 µm (No. 145) sieve.	
	Certified value	
	Pb 208.8 mg/kg ± 4.9 mg/kg	
SRM-2589	Powdered Paint (Nominal Mass Fraction of 10 % Lead)	35 g
	A unit of SRM 2589 consists of 35 g of powdered paint material, 99+ % of which passes a 100 µm (No. 145) sieve.	
	Certified value	
	Pb 9.99 % ± 0.16 %	
SRM-2781	Domestic sludge - Metals	40 g
	A unit of SRM 2781 consists of a bottle containing 40 g of dried, pulverized domestic sludge.	
	Certified value	
	As7.81 ± 0.67 mg/kg	Mo46.6 ± 5.4 mg/kg
	Cd12.78 ± 0.63 mg/kg	Ni80.2 ± 1.8 mg/kg
	Cr202 ± 14 mg/kg	Se16.0 ± 1.5 mg/kg
	Cu627.8 ± 18.4 mg/kg	Ag97.6 ± 6.5 mg/kg
	Pb200.8 ± 4.2 mg/kg	Zn1273 ± 68 mg/kg
	Hg3.68 ± 0.14 mg/kg	N4.78 ± 0.16 %
SRM-2782	Industrial Sludge	70 g
	A unit of SRM 2782 consists of 70 g of dried, pulverized, and radiation sterilized industrial sludge.	
	Certified value	
	As166 mg/kg	Mo 10.07 mg/kg
	Cd4.17 mg/kg	Ni 154.1 mg/kg
	Cr109 mg/kg	Pb 574 mg/kg
	Cu2594 mg/kg	Se 0.44 mg/kg
	Hg1.10 mg/kg	Zn 1254 mg/kg

