



Technical Solutions Monitoring

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Throughout 150+ years of its history,
we have **contributed to society through science and technology**,
providing cutting-edge analytical and measurement technologies worldwide.

How Shimadzu contributes to society through science and technology?

The rise of pollution as a social problem (1950's~1960's)



Air Pollution Control Act (1968, Japan)






Monitoring of pollutants required






Real-time, on-site monitoring of
NO_x, SO₂ etc.

Detailed laboratory analysis of
VOC and PM_{2.5}

Real-time, on-site monitoring of NO_x, SO₂ etc.

	Stationary gas analyzer	Transportable gas analyzer	
Product name	NSA-3090 	NOA-7100 	CGT-7100 
Targets	NO _x , SO ₂ , CO, CO ₂ , O ₂	NO _x , NO, NO ₂	CO, CO ₂ , CH ₄
Method	Ratio infrared analyzer and a magnetic wind oximeter	Chemiluminescence method based on the reaction with ozone gas	Ratio photometric non-dispersive infrared absorption (NDIR) method
Data transfer	Mainly analog signal	Analog signal, LAN cable, Wi-Fi, USB	
Placement	Exhaust lines in incineration facilities, thermal power plants etc.	On-site remote location	

Detailed laboratory analysis of VOC and PM2.5

	VOCs	PM2.5			
Product name	GC/MS 	Nexera 	EDX-7000/8000 	TOC-L 	HIC-ESP 
Targets	VOCs and others	Polycyclic Aromatic Hydrocarbons (PAH)	Inorganic Elemental Components	Water Soluble Organic Carbon	Ionic Components
Method	Thermal desorption gas chromatograph mass spectrometer (TD-GC/MS)	Ultra High Performance Liquid Chromatograph (UHPLC)	X-Ray Fluorescence Spectrometer	Total Organic Carbon Analyzer	Ion Chromatograph

Other things to know about Shimadzu

1. Wide range of solutions for environmental analysis (right table), as well as life science research
2. Headquarter in Kyoto, Innovation Center in Tonomachi (right next to Haneda)
3. Sales operation and R&D Centers around the world
4. Nobel Prize laureate in chemistry in 2002
5. ... embarked on our 151st year

		FTIR	·LC ·LC-MS ·LC-MS/MS	·GC ·GC-MS ·GC-MS/MS	·ICP ·ICP-MS ·AA ·EDX	IC	·UV ·RF ·Photoreaction Quantum Yield Evaluation System	·TOC ·On-Line System
Water	Surfactants	●	●	●			●	
	Metals, heavy metals, cyanide, etc. (inorganic substances)		●		●	●	●	
	Nitrogen, phosphorus, and organic substances (eutrophication pollution)			●			●	●
	Volatile organic compounds (VOCs)			●				
Atmosphere	Volatile organic compounds (VOCs)			●				
	NOx, CO ₂ , ammonia, etc.			●				●
	Formaldehyde, benzene, etc.		●	●				
	Dust and PM2.5 (metals, ions, polycyclic aromatics, etc.)		●	●	●	●	●	●
Soil	Benzene, dichloromethane, etc. (volatile organic substances)			●				
	Cadmium, lead, mercury, arsenic, etc. (inorganic substances and metals)				●	●	●	
	Residual pesticides		●	●				
Waste	PCB			●				
	Microplastics	●	●	●	●			
Renewable Energies and New Materials	Hydrogen fuel			●		●		
	Biofuels	●	●	●		●		●
	Power generation from wood biomass							
	Artificial photosynthesis		●	●			●	
	CNF		●		●		●	

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Employees:
• 3,687 in Japan
• 14,481 overseas
Subsidiaries:
• 23 in Japan
• 58 overseas
As of March 31, 2025

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Thank you very much

