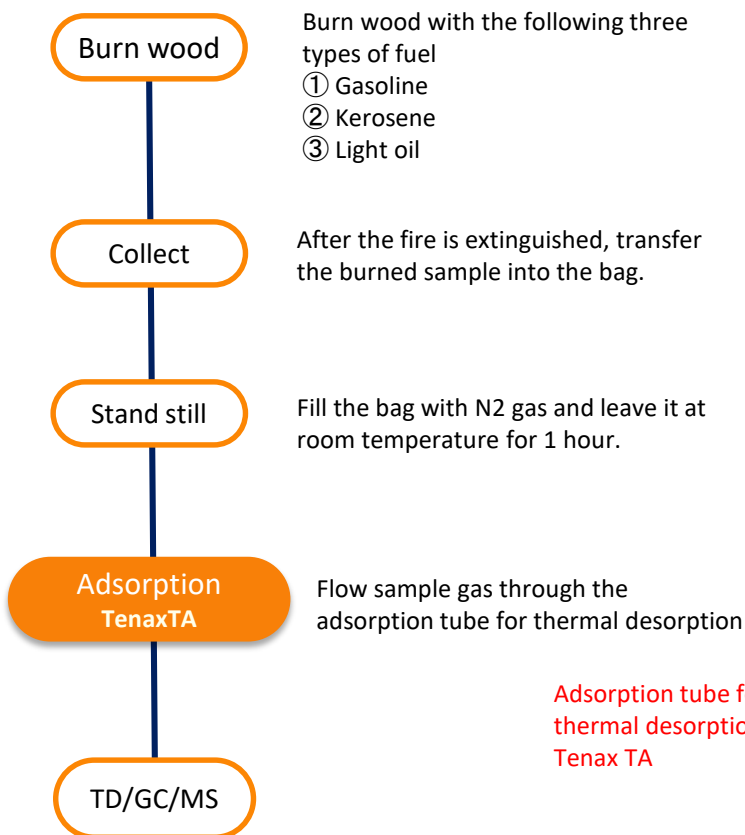


# Volatile Component Analysis of Combustion Using The Portable Thermal Resolver HandyTD TD265

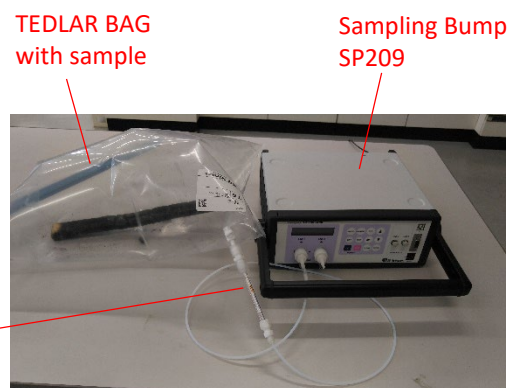
Assuming a fire site where fuels such as gasoline, kerosene, and light oil were used, we used HandyTD TD265 to perform a concentration analysis of the components that volatilize from the recovered material after combustion. In the recovered material, components derived from the fuel used for combustion were detected.

## Standard Solution Analysis

### < Sample pretreatment procedure >



Burning



Sampling

### <Standard Sample Preparation Procedure>

1. Dilute gasoline, kerosene, and light oil with hexane.
2. Add the diluted sample to the adsorption tube for thermal desorption and analyze by TD/GC/MS.

## Condition

### GC Conditions

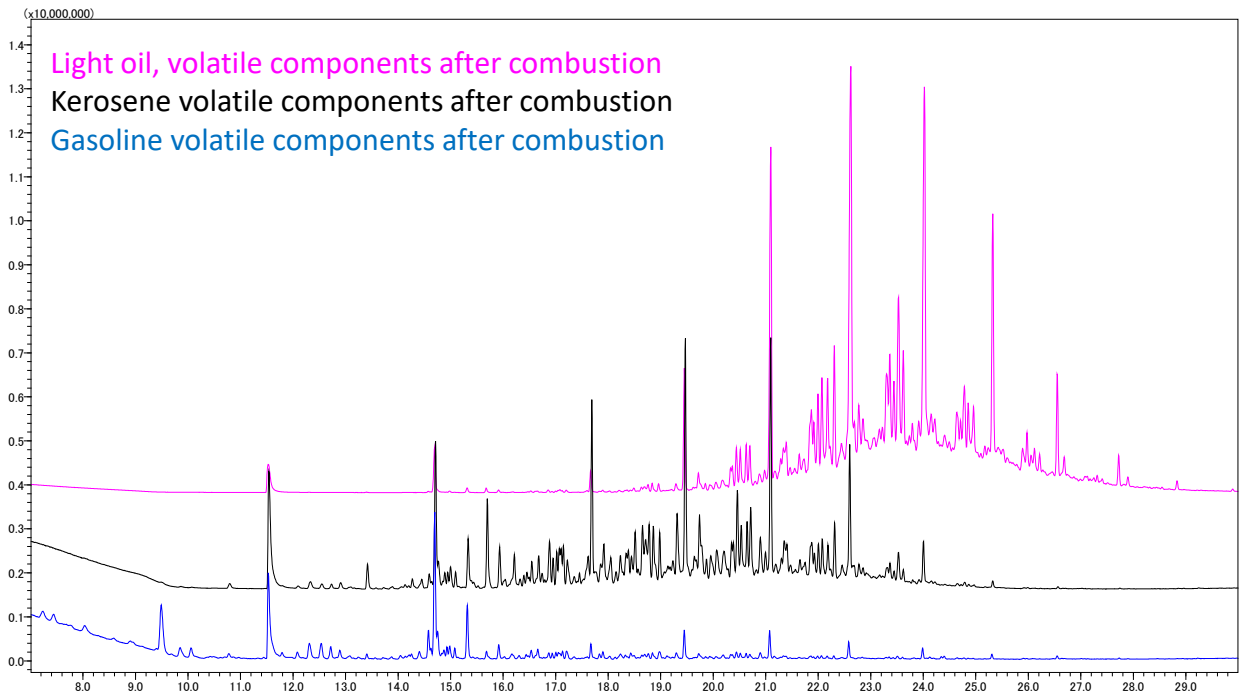
System	: GC/MS
Column	: InertCap 1 0.25 mm I.D. × 60 m df = 0.25 μm
Col.Temp.	: 40 °C (5 min) - 10 °C /min - 300 °C
Carrier Gas	: He 150 kPa
Injection	: Split 1:100 240 °C
Detection	: MS Scan (35 - 450 m/z)

### HandyTD Conditions

Desorb Temp.	: 300 °C (5 min)
Pre Desorb Press.	: 180 kPa

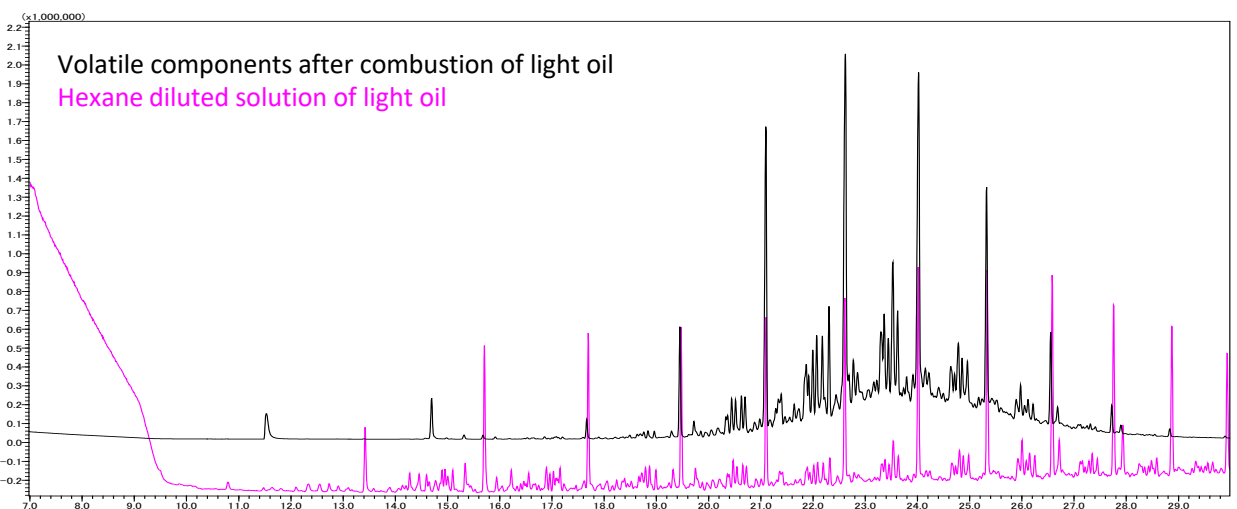
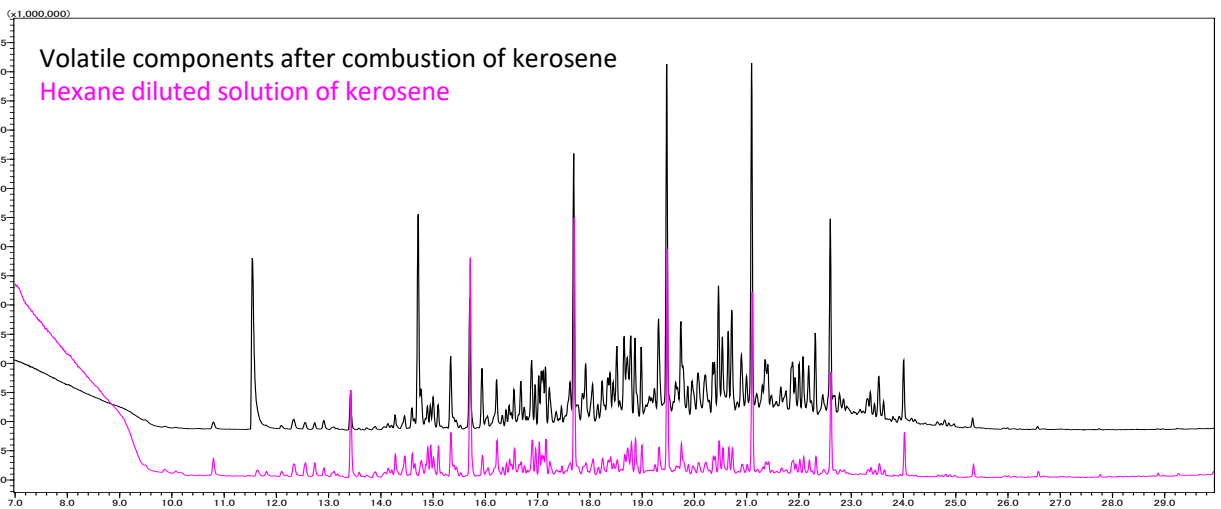
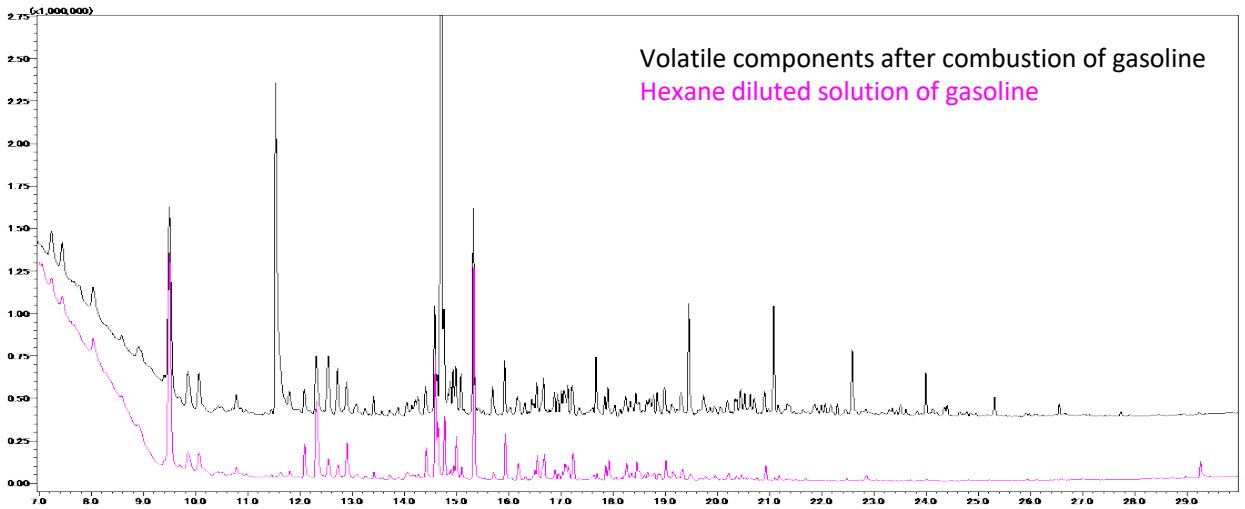
## VOCs After Combustion of Each Fuel

We compared the volatile components of burned lumber with gasoline, kerosene, and light oil applied to the lumber. There was a difference in the peak pattern for each fuel.



## Comparison of fuel and volatile components after combustion

It was confirmed that the components of the fuel used for each combustion were detected in the chromatogram after combustion.



## Related products

### <Portable Thermal Desorber HandyTD TD265>

Using the GC inlet, the sample is introduced by heat desorption of the volatile components concentrated in the adsorbent.

Due to its compact design that can be carried around, it does not occupy the GC.

About  
5 kg



#### Features

- ✓ Space-saving design
- ✓ Easy touch panel operation without a PC
- ✓ Compatible with each company's GC device
- ✓ Equipped with electronic flow tone (EPFC)

Description	Qty.	Cat.No
HandyTD TD265	1	2702-30001

### <Sampling Bag>

Description	Capacity	Model	Qty.	Cat.No
Tedlar bag	10 L	AAK	1 pc	3008-91110

### <Sampling Pump SP209 series>

Description	Qty.	Cat.No
Atmospheric sampling pump SP209-1000Dual	1 pc	2702-17583

### <Adsorbent for Thermal Desorption AERO TD Tube>

Description	Qty.	Cat.No
AERO TD Tube TENAX TA	10	1003-74102

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#### **GL Sciences Inc. Japan**

22-1 Nishishinjuku 6-chome  
Shinjuku-ku, Tokyo  
163-1130, Japan

Phone: +81-3-5323-6620  
Fax: +81-3-5323-6621  
Email: [world@glsc.co.jp](mailto:world@glsc.co.jp)  
Web: [www.glsciences.com](http://www.glsciences.com)

#### **GL Sciences Inc. USA**

4733 Torrance Blvd. Suite 255  
Torrance, CA 90503  
USA

Phone: +1-310-265-4424  
Fax: +1-310-265-4425  
Email: [info@glsciencesinc.com](mailto:info@glsciencesinc.com)  
Web: [www.glsciencesinc.com](http://www.glsciencesinc.com)

#### **GL Sciences B.V.**

Dillenburgstraat 7C  
5652AM, Eindhoven  
The Netherlands

Phone: +31-40-254-9531  
Email: [info@glsciences.eu](mailto:info@glsciences.eu)  
Web: [www.glsciences.eu](http://www.glsciences.eu)

#### **GL Sciences (Shanghai) Limited**

Tower B, Room 2003  
Far East International Plaza  
No.317 Xianxia Road, Changning District  
Shanghai, China 200051

Phone: +86-21-62782272  
Email: [contact@glsciences.com.cn](mailto:contact@glsciences.com.cn)  
Web: [www.glsciences.com.cn](http://www.glsciences.com.cn)



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