



FRONTIER LABORATORIES LTD.

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Typical Product Training Schedule (Service)

List of products to learn

- Double-Shot Pyrolyzer :PY-2020iD
- Ultra ALLOY Capillary Column
- Selective Sampler :SS-1010E
- Micro UV Irradiator :UV-1047Xe
- Carrier Gas Selector :CGS-1050E
- MicroJet Cryo-Trap :MJT-1030E
- Auto-Shot Sampler :AS-1020E
- F-Search System Ver.3.0 :EGA, Pyrogram, Pyrolyzates and Additive libraries
- Vent-free GC/MS adapter :MS402180
- New products (if available)

List of attendants

Entry No.	Name	Company	Country

Frontier Lab

Name	Position	E-mail

System assignment in LAB session

GC/MS System	Students				Instructor	

Product Training Schedule Day 1

Time	Title	Lecture/ LAB.	Contents	Lecturer/Host
8:00	Leave Hotel for F-LAB			
8:30~8:45	Orientation		<ul style="list-style-type: none"> • About training schedule 	
8:45~9:15	About Frontier Lab.	Lecture	<ul style="list-style-type: none"> • Introduction of Frontier Laboratories Ltd. 	
9:15~10:00	General and fundamental of pyrolysis	Lecture	<ul style="list-style-type: none"> • General information about pyrolyzer • Important factors in polymer characterization • Application areas 	
10:00~10:15	Break			
10:15~11:30	Features of Multi-functional Pyrolyzer	Lecture	<ul style="list-style-type: none"> • Analytical methods • Peripherals (accessories) 	
11:30~12:00	Ultra ALLOY Capillary Column	Lecture	<ul style="list-style-type: none"> • Features and advantages. 	
12:00~13:00	Lunch			
13:00~15:00	PY-2020iD Installation	LAB	<ul style="list-style-type: none"> • Vent-free GC/MS adapter installation • PY-2020iD Installation • PY-2020iD control software overview • Maintenance 	
15:00~15:15	Break			
15:15~17:30	PY-2020iD Operation	LAB	<ul style="list-style-type: none"> • Single-Shot (Flash pyrolysis) • Performance verification • EGA • Trouble shooting 	

Product Training Schedule Day 2

Time	Title	Lecture/ LAB.	Contents	Lecturer/Host
8:00	Leave Hotel for F-LAB		TAXI	
8:20 ~8:30	Review	Lecture	<ul style="list-style-type: none"> • Q & A 	
8:30 ~9:30	F-Search	LAB	<ul style="list-style-type: none"> • Features • Installation procedure • Operation over view 	
9:30 ~ 9:45	Break			
9:45 ~ 12:00	PY-2020iD Operation	LAB	<ul style="list-style-type: none"> • Double-shot 	
12:00 ~ 13:00	Lunch			
13:00 ~ 15:15	SS-1010E installation	LAB	<ul style="list-style-type: none"> • Features and principle of operation. • Installation procedure • Performance verification • Heart-Cut EGA operation • Maintenance & Trouble shooting 	
15:15 ~ 15:30	Break			
15:30 ~ 17:30	MJT-1030E Installation	LAB	<ul style="list-style-type: none"> • Features and principle of operation. • Installation procedure • Performance verification • Maintenance & Trouble shooting 	

Product Training Schedule Day 3

Time	Title	Lecture/ LAB.	Contents	Lecturer/Host
8:00	Leave Hotel for F-LAB		TAXI	
8:30~9:00	Review	Lecture	<ul style="list-style-type: none"> • Q & A 	
9:00~10:30	AS-1020E Installation & operation	LAB.	<ul style="list-style-type: none"> • Product overview • Installation procedure • Sample analysis using AS-1020E for overnight • Maintenance & Trouble shooting 	
10:30~12:00	Pyrolyzer & peripherals	LAB	<ul style="list-style-type: none"> • Automatic heart-cut analysis using SS-1010E, MJT-1030E and AS-1020E 	
			<ul style="list-style-type: none"> • F-Search operation (During analysis) 	
12:00~13:00	Lunch			
13:00~14:30	CGS-1050E Operation	LAB	<ul style="list-style-type: none"> • Installation Overview and operation • Pyrolysis in air environment 	
14:30~15:30	UV-1047Xe	LAB	<ul style="list-style-type: none"> • Installation Overview and operation 	
15:30~15:45	Break			
15:45~17:30	Maintenance/ Troubleshooting	LAB.	<ul style="list-style-type: none"> • Pyrolyzer • Selective sampler • MicroJet Cryo-Trap 	

Product Training Schedule Day 4

Time	Title	Lecture/ LAB.	Contents	Lecturer/Host
8:15	Leave hotel for F-LAB			
9:00~10:30	Maintenance/ Troubleshooting	LAB.	<ul style="list-style-type: none"> • Auto-Shot Sampler • Consumable and maintenance parts information • Support team information 	
10:30~11:00	Support information	Lecture/LAB	<ul style="list-style-type: none"> • Consumable and maintenance parts • Support team information 	
12:00~13:00	Lunch			
13:00~16:30	OPTION	LAB	<ul style="list-style-type: none"> • Getting more familiar with the system 	
16:30~17:30	Wrap-up	Lecture	<ul style="list-style-type: none"> • Q & A • Certificate conferment 	