

Instrument	Date	Description	Price
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**AQUADYNE DVS**

March 26-27 September 10-11	<b>The following topics will be covered during the 2-days:</b>	\$1,600
	<ul style="list-style-type: none"> <li>• Instrument installation / safety</li> <li>• Sample preparation for water sorption measurements</li> <li>• Instrument calibration</li> <li>• Physisorption / water sorption (Types of water isotherms; hydrophilic/hydrophobic surfaces)</li> <li>• Instrument operation - isotherm measurement (Surface area/porosity characterization; temperature dependence– heats of adsorption; water sorption hysteresis)</li> <li>• Instrument maintenance.</li> </ul>	



**AUTOSORB iQ / AUTOSORB-1 / AUTOSORB-6**

February 6-7 May 14-15 August 13-14 November 12-13	<b>The following topics will be covered during the 2-days:</b>	\$1,600
	<ul style="list-style-type: none"> <li>• Instrument installation/safety</li> <li>• Sample outgassing</li> <li>• Physisorption theory</li> <li>• Instrument and software operation- Surface area /mesopore characterization</li> <li>• Micropore characterization</li> <li>• Data reduction models: Surface area (BET method), t-plot methods, BJH poresize distribution calculations, DFT methods (micropore characterization)</li> <li>• Instrument maintenance.</li> </ul>	

**OPTIONAL CLASS** (Choice of one operation listed below.)

February 8 May 16 August 15 November 14	<b>The following topics will be covered during the one day:</b>	\$ 800
	<ul style="list-style-type: none"> <li>- Cryostat operation or</li> <li>- Vapor sorption</li> </ul>	



**AUTOSORB iQ - C / AUTOSORB-1-C**

February 9 May 17 August 16 November 15	<b>The following topics will be covered during the one day:</b>	\$ 800
	<ul style="list-style-type: none"> <li>• Sample pretreatment for chemisorption</li> <li>• Instrument and software operation</li> <li>• Chemisorption isotherms • Metal area, dispersion, cluster size.</li> </ul>	

**OPTIONAL CLASS** (Autosorb-1C or Autosorb-iQ-C)

February 10 May 18 August 17 November 16	<b>The following topics will be covered during the one day:</b>	\$ 800
	Please specify TCD option or Mass spectrometer	

Quantachrome Instruments  
1900 Corporate Drive  
Boynton Beach, FL 33426  
(t) 561.731.4999  
(f) 561.732.9888  
qc.training@quantachrome.com

	M	T	W	Th	F
January		17	18	19	20
February	6	7	8	9	10
March	26	27	28	29	30
April		24	25	26	
May	14	15	16	17	18
June	11	12	13	14	
August	13	14	15	16	17
September	10	11	12		
October	15	16	17	18	19
November	12	13	14	15	16
December	3	4	5	6	7

- Aquadyne DVS
- Autosorb Series
- ChemBET Pulsar
- Quadrasorb SI/Nova e
- PoreMaster
- Porometer
- Pycnometers

Detailed yearly calendar available, go to:  
[www.quantachrome.com/yearlyplanner.html](http://www.quantachrome.com/yearlyplanner.html)



# 2012 TRAINING CLASSES

Instrument

Date

Description

Price



## ■ POROMETER 3G™

April 26  
September 12

**The following topics will be covered:**

\$ 800

- Instrument installation/sample preparation for pore size and permeability measurements
- Using the software for measurements and analysis
- Basic theory
- Instrument maintenance.



## ■ PYCNOMETER

March 30  
October 19  
December 7

**The following topics will be covered:**

\$ 800

- Instrument installation/sample preparation for volume and density measurement of porous solids and powders, catalysts, pharmaceuticals, ceramics, carbons, building materials, rock core plugs, etc
- pycweb/pycwin software
- Instrument maintenance.

### Hotels:

Hampton Inn & Suites Boynton Beach\* (4 miles)  
1475 West Gateway Blvd., Boynton Bch., FL 33426  
Tel: 561.369.0018 • Fax: 561.738.5235  
1-800-HAMPTON

Marriott Courtyard Boynton Beach\* (3 miles)  
1601 N. Congress Ave, Boynton Bch., FL 33426  
Tel: 561.737.4600

Marriott Delray Beach (5.5 miles)\*  
10 North Ocean Blvd., Delray Bch., FL 33483  
Tel: 561.274.3200 • Fax: 561.274.3202

\* Price subject to revision/change; excludes taxes.  
Ask for Quantachrome Corporate Rate.

### Course Hours:

Training courses run from 9:00 am to 5:00 pm each day. Daily transportation between the Hampton Inn and our facility will be provided at no additional charge if you prefer not to drive yourself.

### Attire Requirements:

Please be advised, that hands-on/practical part of the training is held in the laboratory. For safety reasons, all training participants are required to wear lab-appropriate attire (**closed-toe/heal shoes and long pants**). Safety eye-protection and lab coats are provided during the training.

### Directions from Hampton Inn (Gateway Blvd.) to Quantachrome:

Turn RIGHT out of the hotel parking lot onto Gateway Blvd. Move immediately into the LEFT lane for LEFT turn at first light onto Congress Avenue (South). Proceed South on Congress Avenue (~2.25 miles) to Woolbright Road (Mobil gas station on right, northwest corner). Make a LEFT heading East on Woolbright, proceed ~ ¼ mile. Turn RIGHT onto Corporate Drive ¼ mile BEFORE I-95 (Racetrack gas station on left side of Woolbright, LOWE'S Home Improvement Center on far side of Corporate Dr) Proceed down Corporate Drive (~ 500 yds); Quantachrome (third yellow building) on LEFT.

### General Information:

Quantachrome's headquarters are located at 1900 Corporate Drive, Boynton Beach, Florida 33426.

### Airports:

We are located about 10 miles south of Palm Beach International Airport (PBI) and 30 miles north of Fort Lauderdale International Airport (FLL).

### Directions from Airports:

Follow the signs from airport to I-95 (PBI take I-95 South and from FLL take I-95 North). Follow I-95 to exit 56, Woolbright Road. Go west to first traffic light. Turn left (south) on Corporate Drive (see LOWE'S Home Improvement Store on Southeast corner). Proceed down Corporate Drive (~ 500 yards), Quantachrome (third yellow building) on left.

For more information call us at 561.731.4999, visit us at [www.quantachrome.com/ots.html](http://www.quantachrome.com/ots.html) or email us at [qc.training@quantachrome.com](mailto:qc.training@quantachrome.com)

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# OPERATOR TRAINING COURSES

## Order Registration Form

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Company: \_\_\_\_\_ Purchase Order #: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

INSTRUMENT	CODE NUMBER	NUMBER OF PERSONS	DATE	ATTENDEE NAME(S)	PRICE EACH(\$)	TOTAL PRICE(\$)
 Autosorb Series	TRAINING-IN-AS (2 days)				\$1,600	
 Autosorb-1 (optional class)	TRAINING AS (Optional- 1day)				\$ 800	
 Autosorb-1-C	TRAINING-IN-ASC (1 day)				\$ 800	
 Autosorb-1-C (optional class) (Choose one- circle: AS1C or IQ-C)	TRAINING AS1C (Optional- 1day) TRAINING IQ-C (Optional- 1day)				\$ 800	
 Nova / Quadrasorb (Choose one-circle one)	TRAINING-IN-N (2 days) TRAINING-IN-Q (2 days)				\$1,600	
 ChemBET Pulsar	TRAINING-IN-CBET (2 days)				\$1,600	
 PoreMaster Series	TRAINING-IN-PM (2 days)				\$1,600	
 Aquadyne DVS	TRAINING-IN-AD (2 days)				\$1,600	
 Pycnometer	TRAINING-IN-Pyc (1 day)				\$ 800	
 Porometer	TRAINING-IN-Po (1 day)				\$ 800	

For course dates, please visit our website at [www.quantachrome.com](http://www.quantachrome.com) or email [qc.training@quantachrome.com](mailto:qc.training@quantachrome.com).

All courses take place at Quantachrome's corporate headquarters in Boynton Beach, Florida. Course fees include transport between local hotels and headquarters. Please indicate below if you will be renting a car and do not require transport (no refund for unused transport offer). Attendees are responsible for their own transportation to Boynton Beach and for hotel reservations. You are welcome to email us for recommendations.

I/we **do not** need to be picked up/dropped off at local hotel.

I/we **do** need to be picked up/dropped off at local hotel.

**Lunch is also included. Please indicate any special dietary requirements:**

**How did you learn about our instrument training courses?** *Please choose one:*

Website

Email Notice

Newsletter

Flyer (with order)

Flyer (at trade show \_\_\_\_\_)

Other \_\_\_\_\_

### Recommended Reading:

#### Characterization of Porous Solids and Powders:

#### Surface Area, Pore Size and Density (ISBN 1-4020-2302-2)



This book gives a unique overview of principles associated with the characterization of solids with regard to their surface area, pore size and density. The book covers methods based on Gas Adsorption (Physi- and Chemisorption), Mercury Porosimetry and Pycnometry. Not only are the theoretical and experimental basics of these techniques described, but also the most recent developments, particularly in light of the tremendous progress made in recent years in Materials Science and Nanotechnology. The application of classical theories and methods for pore size analysis are discussed in contrast with the most advanced microscopic theories based on statistical mechanics (e.g. Density Functional Theory and Molecular Simulation). The book will appeal both to students and to scientists in industry who are in need of accurate and comprehensive pore and surface area characterization of their materials.



**To order a copy, or for more information, go to [www.quantachrome.com](http://www.quantachrome.com) and click on the book banner ad.**  
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