the Catalyst

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City Hall

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From The Chair





Welcome to Philadelphia!!!

As Chair of the Philadelphia Local Section, it is a distinct pleasure for me to welcome you to Philadelphia for the 236th National meeting of the American Chemical Society. Because of the high concentration of chemical and chemically-related companies, and a high density of colleges and universities, our Section membership draws from a wide variety of chemical professionals. This diversity is reflected in the composition of our Board of Directors and Councilors. We are, however, united in the hope that your stay in Philadelphia, and your participation in the National meeting, are positive, productive and, most importantly, enjoyable!

Allow me to offer you a somewhat personal view of our wonderful city. I am a Philadelphia native, "born and bred," as they say. I have lived here, studied here, and worked here my entire life. Philadelphia is known as a city of neighborhoods. I grew up in the section known as Strawberry Mansion (no, we did not grow strawberries and it was certainly not a mansion; it was really a part of the "hood," but I do believe there was originally a namesake mansion in nearby Fairmount Park). I remember spending Sunday afternoons (with my mother after church, of course) exploring many of the "cultural" opportunities the city had to offer. Among my favorites were:

※ The historic sites such as the Liberty Bell, Independence Hall, the Betsy Ross House, Old Christ Church;

**Fairmount Park including the Philadelphia Zoo and the mansions and other park attractions;

※ The Philadelphia Naval Yard (sorry, it is no longer a Naval Yard and I believe it is operating as a private shipbuilding facility) back when I actually toured a real Navy destroyer and a submarine!;

₩ The museums on the Parkway (oops – I mean the Benjamin Franklin Parkway) including The Philadelphia Museum of Art, the Rodin Museum (home of "The Thinker"), and of course, the Franklin Institute. One of my favorite buildings on "the Parkway" was the main branch of the Philadelphia Public Library. A voracious reader as a child, I think I believed every book known to man was available in that large building. However, I also loved the building itself, with its high ceilings, and grand marble staircase. Check out the library's website for more details or, better still, find some time to visit. It can be reached easily from most Center City hotels.

Although I realize I cannot recreate those memorable Sunday afternoons, I encourage you to explore some of those sites (between meetings of course) so you can create memories of your own.

The greater Philadelphia area is awash in places to go and things to see. You can find many specific ideas for food and fun in this special edition of *the Catalyst*. Of interest to scientists are the large number of colleges and universities both in the city as well in the immediate area and organizations such as The Chemical Heritage Foundation, The Academy of Natural Sciences and The Mütter Museum of the College of Physicians and Surgeons. If you enjoy shopping, The Gallery in Center City is a first class mall that can be reached from some of the Center City hotels without going outside.

Among my favorite Center City shopping venues is the Reading Terminal Market, an absolute must for at least one lunch while you are here. And, while you are here, seek out an authentic Philly pretzel and a real cheese steak. If you want to wander outside of the city, check out Lancaster, PA known as "Dutch Country." There you will see rolling

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hills, picturesque barns and farm houses, and fields growing a variety of crops. Of course the food in "Dutch Country" prepared in the Amish or Mennonite tradition is, in my opinion, not to be missed (to be fair I should note that some find their food over cooked and vegetables over pickled, so you decide). Finally, the "shore" and the "mountains" (the New Jersey shore communities including Atlantic City and Wildwood, and the Pocono mountain area, respectively) are an hour or two away by car. The members of our Section sincerely hope you will experience at least a little of what we enjoy about living in the greater Philadelphia area.

During the meeting the Section is sponsoring or co-sponsoring several events and we look forward to seeing you at some of them. Please stop by our Section booth. The volunteers from our Section who have agreed to staff our booth and I will be delighted to meet you and more than happy to share our recommendations for things to do and see outside of the meeting. Speaking of volunteers, I also want to take this opportunity to thank every one in the Philadelphia Section who worked so hard in preparation for this meeting. All of the efforts were essential and each one is sincerely appreciated!

We hope you will take home memories of the benefit gained from the National meeting including the technical sessions, exposition and professional networking. Also, take home memories of the enjoyment of at least some of the many things to see and do in our beloved city. We hope you will plan to come back to visit us again soon.

Welcome!

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Philadelphia's Major Historic Sites and Museums

Alan Warren

Historic Sites:

Independence Visitor Center—Orientation for Independence National Historic Park and to arrange visits to the Liberty Bell, Independence Hall, suggested walking tours, and short films about Philadelphia history.

6th & Market Streets
Daily 8:30 AM – 7 PM
Free
215-965-7676 or 800-537-7676
www.independencevisitorcenter.com

National Constitution Center—Learn what the United States Constitution stands for. Exhibits of historic artifacts and interactive exhibits.

5th & Arch Streets Mon-Fri, 9:30 AM – 5 PM Sat, 9:30 AM – 6 PM; Sun Noon – 6 PM \$12 Adults, \$8 Children, \$11 Seniors 215-409-6600 www.consitutioncenter.org

Franklin Court—See where Benjamin Franklin once lived and worked; museum, short film, interactive exhibits, post office.

Between 3rd and 4th Streets & Chestnut and Market Streets (enter at 318 Market) Daily 9 AM – 5 PM

Free

www.ushistory.org/tour/tour_fcourt.htm

Christ Church—Historic church whose congregation included Benjamin Franklin and George Washington.

2nd & Market Streets

Mon-Fri 9 AM -5 PM, Sun 12:30 PM - 5 PM Free

215-922-1695

www.christchurchphila.org

Christ Church Burial Ground—Final resting place of Benjamin and Sarah Franklin and five signers of the Declaration of Independence.

5th & Arch Streets

Mon-Sat 10 AM-4 PM; Sun Noon-4 PM Free

Edgar Allan Poe House—Where the author penned The Tell-Tale Heart and other works.

7th & Spring Garden Streets Wed-Sun 9 AM – 5 PM

Free

www.nps.gov/edal

Elfreth's Alley—The nation's oldest residential street dating from 1702.

2nd Street between Race and Arch Streets Museum Hours Tues Noon – 5 PM; Wed-Sat 10 AM – 5 PM

Sun Noon - 5 PM

Walking the street is free. Museum at 124 Elfreth's Alley, \$5 Adults, \$1 Children www.elfrethsalley.org

Eastern State Penitentiary—Philadelphia's historic prison built in 1829 that once housed Willie Sutton and Al Capone.

22nd Street & Fairmount Avenue

Daily 10 AM - 5 PM

\$12 Adults, \$8 Seniors and Children 215-236-3300

www.easternstate.org

City Hall—The city's government offices Broad and Market Streets

Mon-Fri, interior tour only at 12:30 PM Mon-Fri, tours of the tower Noon – 4:15 PM

Mon-Fri, Tour Information Center, East Portal, Room 121, 9:30 AM – 4:30 PM Free

215-686-2840

Betsy Ross House—Where the nation's first flag was sewn

239 Arch St.

Daily 10 AM - 5 PM

Suggested donation \$3 adults, \$2 children

215-686-1252

www.betsyrosshouse.org

Museums

Philadelphia Museum of Art—One of the greatest art museums in the US.

26th Street & Benjamin Franklin Parkway Tues-Sun 10 AM – 5 PM (Fri until 8:45 PM)

\$14 Adults, \$10 Children, \$12 Seniors 215-763-8100

www.philamuseum.org

Rodin Museum—The largest collection of the sculptor's work outside the Rodin Musée in Paris.

Between 21st and 22nd Streets & Benjamin Franklin Parkway

Tues-Sun 10 AM – 5 PM

\$3 Donation, free with same-day admission ticket to Philadelphia Museum of Art

215-568-6026

www.rodinmuseum.org

Pennsylvania Academy of Fine Arts—Stunning building designed by architect Frank Furness, housing early American paintings by Gilbert Stuart, the Peale family, and others.

118 North Broad Street at Cherry Street

Tues-Sat 10 AM – 5 PM; Sun 11 AM – 5 PM

\$7 Adults, \$6 Seniors, \$5 Children 215-972-7600 www.pafa.org

Please Touch Museum—Educational and cultural hands-on exhibits designed for youngsters.

210 North 21st Street near Race Street

Daily 9 AM - 4:30 PM

\$10.95 Adults and Children

215-963-0667

www.pleasetouchmuseum.org

Franklin Institute Science Museum—A science museum for all ages with interactive exhibits, planetarium, IMAX Theatre.

20th Street & Benjamin Franklin Parkway

Sun-Thurs 9:30 AM – 5 PM; Sat-Sun 9:30 AM – 9 PM

\$14.25 Adults, \$11.50 Children, includes planetarium; IMAX Theatre is extra 215-448-1200

www.fi.edu

Academy of Natural Sciences— Dinosaurs and natural history displays of North American, Asian, and African flora and fauna. Live butterfly exhibit.

19th Street & Benjamin Franklin Parkway

Mon-Fri 10 AM – 4:30 PM; Sat-Sun 10 AM – 5 PM

\$10 Adults, \$8 Seniors and Children 215-299-1000

www.ansp.org

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Independence Seaport Museum— Maritime history of the Port of Philadelphia and Delaware River. Admission price includes two ships: Admiral Dewey's flag ship USS Olympia and the submarine USS Becuna, both within walking distance of the museum.

211 South Columbus Blvd. (the waterfront at Penn's Landing on the Delaware River). Daily 10 AM – 5 PM \$10 Adults, \$7 Seniors and Children

215-413-8655 seaport.phillyseaport.com

National Museum of American Jewish History—The story of Jewish participation in the development of the United States.

55 North 5th Street, north of Market Street

New museum under construction, to open in 2010

www.nmajh.org

African-American Museum—African-American culture and history including slavery.

7th & Arch Streets

Tues-Sat 10 AM - 5 PM; Sun Noon - 5 PM

\$8 Adults, \$6 Seniors and Children 215-574-0380

www.aampmuseum.org

Atwater Kent Museum—A look at Philadelphia history from 1680 until today.

15 South 7th Street just south of Market

15 South 7th Street just south of N Street

Wed-Sun 1 PM – 5 PM

\$5 Adults, \$3 Seniors and Children 215-685-4830

www.philadelphiahistory.org

Mütter Museum—An overview of medical history and oddities.

19 South 22nd Street between Chestnut and Market Streets

Daily 10 AM – 5 PM (Fri to 9 PM)

\$12 Adults, \$8 Seniors and Children 215-563-3737

www.collphyphil.org

Civil War Library and Museum—Artifacts from the Civil War.

1805 Pine Street

Thurs-Sat 11 AM – 4:30 PM \$5 Adults, \$4 Seniors, \$2 Children 215-735-8196

www.netreach.net/~cwlm

Rosenbach Museum & Library—18th and 19th century American and British furnishings; library of the Rosenbach brothers containing rare books and manuscripts.

2008 Delancey Street

Tues, Thurs, Fri, Sat, Sun 10 AM – 5 PM

Wed 10 AM - 8 PM

\$10 Adults, \$5 Children

215-732-1600

www.rosenbach.org

University of Pennsylvania Museum of Archaeology and Anthropology—Artifacts and culture from may parts of the world with emphasis on ancient civilizations such as Egypt.

33rd & Spruce Streets in West Philadelphia

Tues-Sat 10 AM – 4:30 PM, Sun 1 PM – 5 PM

\$8 Adults, \$5 Seniors and Children 215-898-4000

www.museum.upenn.edu

Mummers Museum—The story of Philadelphia's famous New Year's Day parade and its extravagant costumes.

1100 South 2nd Street at Washington Avenue in South Philadelphia

Tues-Sat 9:30 AM – 4:30 PM

\$3.50 Adults, \$2.50 Seniors and Children 215-336-3050

www.mummersmuseum.com

Barnes Foundation—Extraordinary art collection highlighted with paintings of Renoir and Cezanne among others.

300 North Latch's Lane in Merion Station PA (west of Philadelphia)

TTT (West of Timadelpina)

Wed-Sun 9:30 AM - 5 PM

\$12 but reservations needed a month in advance, \$10 onsite parking

610-667-0290

www.barnesfoundation.org

Battleship New Jersey—The nation's most decorated battleship.

Camden, New Jersey waterfront across from Philadelphia's Penn's Landing

Daily 9:30 AM – 5 PM \$15 Adults, \$10.50 Seniors and Children 856-966-1652

www.battleshipnewjersey.org

New Jersey State Aquarium—Worldwide marine life with interactive exhibits.

1 Riverside Drive, Camden NJ Daily 9:30 AM – 5 PM \$17.95 Adults, \$14.95 Children 856-365-3300 www.njaquarium.org

Longwood Gardens—World's premier horticultural gardens, both indoor and outdoor.

Route 1, Kennett Square PA Mon, Tues, Wed, Sun 9 AM – 6 PM; Thurs, Fri, Sat 9 AM – 10 PM \$16 Adults, \$6 Children 610-388-1000 www.longwoodgardens.org

Websites of Interest

Visitor Passes: "Free" Ticket reservations to the Independence National Park: http://reservations.nps.gov

(Home of Independence Hall, the Liberty Bell, www.gophila.com/culturefiles/ historicattractions/constitutioncenter/

Best all around Information site: www. gophila.com,

Culture of Philadelphia: http://www.gophila.com/culturefiles/

City Search: http://philadelphia.citysearch.com/

Thoughts To Ponder

If you don't read the newspaper you are uninformed, if you do read the newspaper you are misinformed.— *Mark Twain*

I contend that for a nation to try to tax itself into prosperity is like a man standing in a bucket and trying to lift himself up by the handle. — Winston Churchill

In general, the art of government consists of taking as much money as possible from one party of the citizens to give to the other.

—Voltaire (1764)

Getting Around in Philly

Just about any attraction, historic or cultural site, entertainment venue, hotel, restaurant or event in Center City can be reached by SEPTA services. These services include the Regional Rail R1 Airport Line; the Market-Frankford line (running east-west); the Broad Street Line (running north-south); Bus Routes 21, 38, and 42; and LUCY, the loop through University City.

Most points of interest and popular visitor destinations are within walking distance of SEPTA services. You can take a single trip on SEPTA buses, subways or trolleys by paying a cash fare of \$2.00 or using a token (\$1.45). Boarding an additional vehicle to continue a trip requires a "transfer" which costs \$0.75 and transfers must be purchased when boarding the first vehicle. "One Day Convenience Passes" are also available - these are good on buses, subways and trolleys and cost \$6.00. The "One Day" pass is valid for up to 8 trips in a single day. Passes and tokens can be purchased online at www.Shop.SEPTA.org. There are also many convenient sales locations where passes and tokens may be purchased in person. A full list of locations in Center City area may be found at: http://www.septa.org/fares/sales locations/center city.html.

LUCY — Loop through University City (Gold & Green Loops) - begins at the southwest corner of AMTRAK's 30th Street Station and loops through University City stopping at Drexel University and the University of Pennsylvania, shops, restaurants and museums. A ride on LUCY is also \$2.00 or it is free with a SEPTA "One Day Convenience Pass," "TrailPass" or "TransPass."

The Route 38 starts at Independence Hall, runs along Market Street and the Ben Franklin Parkway, past the Art Museum, the Philadelphia Zoo and on to the hotels on City Avenue. Routes 21 and 42 travel from Penn's Landing and Old City along Chestnut and Walnut Streets in Center City where you find some of the best shopping and dining in Philadelphia. Routes 21 and 42 continue west and serve the University City area.

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The R1 Airport Line connects University City, 30th Street, Suburban or Market East Stations with all Philadelphia International Airport terminals.

30th Street Station, at 30th and Market Streets, provides a direct connection to AMTRAK and New Jersey Transit Rail services; Suburban Station, located between 16th and 17th Streets on JFK Boulevard, is in the heart of Philly's business district; and Market East Station, located at 11th and Market Streets, is directly below the Pennsylvania Convention Center and connects to the Gallery Shopping Mall and the Reading Terminal Market.

The Broad Street Line (Orange Line) operates underneath Broad Street and travels north-south from South Philly to North Philly. In the downtown area it stops at the following stations: Walnut-Locust, within walking distance of the Avenue of the Arts and City Hall, convenient to hotels and the Convention Center; and Race-Vine, within walking distance of the PA Academy of Fine Arts. The Broad Street Line also connects with NJ PATCO trains at Walnut-Locust Station for trips to New Jersey.

The Market-Frankford Line (Blue Line) operates underneath Market Street and runs east-west from northeast Philadelphia to west Philadelphia. In the downtown area, it stops at 2nd Steet (Penn's Landing and Old City), 5th Street (the heart of the historic area), 8th Street (Gallery Shopping Mall and Chinatown), 11th Street (PA Convention Center and Reading Terminal Market), 13th Street (City Hall and trolleys to University City), and 15th Street (Center City shopping and businesses).

The Market-Frankfort Line also serves AMTRAK's 30th Street Station. The 11th Street Station is located just two blocks from the Greyhound, Trailways and the NJ Transit Bus Terminals at 10th and Filbert Streets. Use the 8th Street Station for easy connections to PATCO trains to New Jersey.

The PHLASH — The Purple Trolly! (See www.PhillyPhlash.com). The Phlash is a quick and easy connection between Center City attractions and most downtown hotels. It is one of the best ways to get around to 21 key locations in Center City and is just \$2 each time you board (children 5 and under and seniors aged 65 and over

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can ride free) or you can purchase Phlash Passes which are \$4 all day individual or \$10 all day family (2 adults/2 kids aged 6-17) for an even bigger savings. Tickets can be purchased at the Independence Visitor Center at 6th and Market Streets or when boarding the Phlash Trolley. Service runs every 12 minutes from 10 AM to 6 PM daily. The 21 Phlash Stops are:

- 1. Penn's Landing—clubs, restaurants and the Independence Seaport Museum.
- 2. 3rd and Market Streets Old City restaurants and galleries.
- 3. 6th and Market Streets Independence Visitor Center, Liberty Bell, Independence Hall, National Constitution Center.
- 4. 8th and Market Streets PATCO Station, Market East shopping, Atwater Kent Museum.
- 5. 12th and Market Streets—PA Convention Center, Reading Terminal Market, Market East Station, Chinatown.
- Juniper and Market Streets City Hall, Lord & Taylor, Market East shopping, Reading Terminal Market.
- 7. 16th Street and JFK Boulevard Suburban Station, LOVE Park, the Clothespin statue, Shops at Liberty Place.
 - 8. Ben Franklin Parkway at 16th Street
- 9. Ben Franklin Parkway at 20th Street Logan Circle, Cathedral Basilica of Sts. Peter and Paul, Academy of Natural Sciences, Free Library of Philadelphia.
- 10. 22nd Streets and the Ben Franklin Parkway Rodin Museum, Eastern State Penitentiary Museum.
- 11. Fairmount and Pennsylvania Avenues.
- 12. 26th Street and the Ben Franklin Parkway Philadelphia Museum of Art, the Fairmount Waterworks, Boathouse Row, Fairmount Park.
 - 13. Logan Square.
- 14. Logan Square, 18th Street and the Ben Franklin Parkway.
- 15. 17th Street and Arch Street Shops at Liberty Place, Rittenhouse Row shopping and dining.
- 16. 17th Street between Market and Chestnut.

- 17. Broad and Chestnut Street.
- 18. 12th and Market Streets PA Convention Center, Reading Terminal, Chinatown, Market East Station.
- 8th and Market Streets PATCO Station, Market East, Atwater Kent Museum.
- 20. 6th and Market Streets—Independence Visitor Center, Liberty Bell, Independence Hall, National Constitution Center.
- 21. 2nd and Market Streets Old City restaurants (including historic Olde City Tavern) and galleries.

Accessible Transportation for Persons with Disabilities

Most SEPTA buses are equipped with a wheelchair lift and/or kneeling step for access by persons with disabilities. However, realistically it is frequently difficult or impossible to board vehicles due to overcrowding at peak times of the day and at busy tourist destinations. In addition, the majority of the stops on the Broad Street and Market-Frankford lines are NOT accessible because they lack elevators at the station stops.

The Phlash and other trolley vehicles in the system are NOT accessible.

Before traveling, visitors with disabilities are STRONGLY advised to call SEPTA at: 215-580-7800 (then press 0) or at 215-580-7853 (TDD) to get assistance with their transportation questions.

Transportation To/From New Jersey

New Jersey Transit serves the region with 20 bus routes and one train line from Atlantic City. For more detailed info, go to their website: www.NJTRANSIT.com

PATCO rail service to Center City is also a good alternative to driving and parking downtown. Seven PATCO stations in New Jersey offer ample parking: Lindenwold, Ashland, Woodcrest, Haddonfield, Westmont, Collingswood and Ferry Avenue. Trains run every 3 to 12 minutes on weekdays, 12 to 40 minutes during evenings and up to 40 minutes on weekends. Service is 24 hours a day. Visit www.RidePATCO.org for more information

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Ready for a Shopping Break??

We have you covered!

- * the nation's oldest continuously operating farmer's market
- * the nation's oldest and largest working outdoor market
- * the largest shopping complex on the East Coast
- * a 1.7 million square foot enclosed outlet mall
- * America's oldest Diamond District Plus many trendy and high-end boutiques, vintage shops, and other one-of-a kind shops!!

Farmer's and Outdoor Markets

Reading Terminal Market — Experience over 80 unique merchants who sell fresh produce; Amish specialties; fresh meats, seafood, and poultry; unique, handmade pottery, jewelry and crafts from around the world. Located at 12th & Arch Sts., the nation's oldest continuously operating farmer's market is open Mon-Sat 8 AM-6 PM,

with some vendors open on Sun 9 AM - 4 PM. Note that Pennsylvania Dutch vendors have limited hours, Wed 8 AM - 3 PM, Thurs-Sat 8 AM - 5 PM only.

Italian Market — Dozens of street vendors can be found lining south 9th Street selling fresh vegetables, fish, meat, spices and product from their stalls while gourmet shops and restaurants occupy the storefronts between the stalls. Located at S. 9th Street and Washington Avenue (along 9th Street between Wharton and Fitzwater), the nation's oldest and largest working outdoor market is open Tues-Sat 9 AM - 5 PM, Sun 9 AM - 2 PM.

Malls

King of Prussia Mall — The largest shopping complex on the East Coast boasts 9 department stores, 365 specialty shops and 35 restaurants — there's something for everyone here! It's located just 15 miles west of Philadelphia on Route 202 at Mall Blvd, where I 76 meets the Pennsylvania Turnpike. The mall is open Mon-Sat 10 AM - 9:30 PM, Sun 11 AM - 7 PM.





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Franklin Mills Outlet Mall — This amazing outlet mall offers top designer names at up to 60% off!! There are over 200 stores, 2 food courts, 7 theme restaurants and a 14-screen movie theater. It's located only 15 miles from Center City just off Interstate 95 at the intersection of Woodhaven Road (PA 63) and Knights Road. The mall is open Mon-Sat 10 AM - 9:30 PM, Sun 11 AM - 7 PM.

Gallery at Market East—If you're looking to shop within walking distance, check out this local mall located in the heart of Center City on Market Street between 8th and 12th Streets. The mall is open Mon, Tues, Thurs, Sat 10 AM - 7 PM; Wed, Fri 10 AM - 8 PM; Sunday Noon - 5 PM.

Specialty Shops

Jewelers Row—Hundreds of independent jewelry stores await you here, offering a virtually unlimited selection of fine jewelry at greatly discounted prices! Located a short walk from the Philadelphia Convention Center on Sansom Street between 7th & 8th Streets and on 8th Street between Chestnut and Walnut Streets, many shops are open seven days a week.

Antique Row — A local favorite spot to search for that antique book, stained glass, or furniture you've been after! It's located just six blocks from the Convention Center along Pine Street between 9th & 13th Streets. Hours vary by store.

High End Boutiques, Vintage Shops and One-of-a Kind Shops

Rittenhouse Row — Located from the Avenue of the Arts to 21st St. and from Spruce to Market Streets, it features international upscale retailers as well as trendy, independent specialty shops. Hours vary by store.

Main Street in Manayunk — With over 65 shops, trendy boutiques and galleries, you're sure to find that one-of-a-kind item you're looking for here! It's located just minutes from Center City along Main Street (4300 Main Street). Hours vary by store.

Old City — Visit the "liveliest urban neighborhood between Soho in New York and SoBe (South Beach) in Miami," according to *National Geographic* magazine. Offering vintage and high end fashion boutiques and home furnishings, it's located along the 2nd & 3rd Street corridors of Old City. Hours vary.

South Street — Stop by Philadelphia's famous street to check out an eclectic lineup of over 300 shops, most independently owned. The shops are located on South Street, between Front & 8th Streets. Hours vary.

History of Chemistry in the Delaware Valley

The history of chemistry in the Delaware Valley from the foundation of DuPont in the Brandywine Valley to the vigorous growth of chemically related industries, academic departments, and professional societies throughout the region, owes much of its roots to the needs of war. Delaware's rivers and ample water supply made it an area highly suited to the development of mills and flour manufacturing, and Wilmington became the new nation's leading flour-milling area. In the 1780s and '90s, paper and cotton mills were added to the Brandywine Village's existing flour mills.

Fleeing the excesses of the French Revolution, E.I. du Pont de Nemours settled here in 1802, purchased the "Hagley" property along the Brandywine and opened his black powder manufactory. From 1802 to 1921 these and other local mills produced gun and blasting powder for America's hunters, soldiers and construction projects, including the War of 1812, the Mexican War (1846-48), the Civil War (1861-65), the Transcontinental Railroad, the Spanish-American War (1898), and the Panama Canal.

From these gunpowder mills sprang the modern chemical industry, which is still headquartered here - the DuPont Company, Hercules, Inc., and ICI Americas.

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Important Telephone Numbers

Emergency

Police, Fire & Medical Emergencies	911
Addiction & Abuse 24 Hour Hotline	800-777-2721
Airport Medical Emergencies	215-937-3111
American Red Cross Emergency Services	215-299-4000
Dental Emergency (Phila. County Dental Society)	215-925-6050
Doctor (Phila. County Medical Society)	215-563-5343
Mayor's Commission on People with Disabilities	215-686-2798
Office of Emergency Shelter & Services	215-686-7150
Poison Control Center	215-386-2100
Suicide & Crisis Intervention Center	215-686-4420
Traveler's Aid Society	215-523-7580
Weather	215-936-1212

Transportation

AMTRAK (train)	800-USA-RAIL	(800-872-7245)	www.amtrak.com
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GreyHound (Bus) 215-931-4075 www.greyhound.com

SEPTA 215-580-7800- (TDD) 215-580-7853 www.septa.com

PATCO 215-922-4600 www.ridepatco.org NJ Transit 800-582-5946 www.njtransit.com/

Philadelphia International Airport www.philadelphia-phl.com/

Airline Departures 800-PHL-GATE (800-745-4283)

Automobile Rentals

Alamo	215-492-3960
Avis	215-492-0900
Budget	215-492-9400
Enterprise	610 592-0333
Hertz	800-654-3131
National	215-492-2760

Taxicabs

All City Taxi	215-467-6666
Broad & Pike Motors	215-222-5000
Capital Dispatch	215-235-2200
City Cab	215-238-5000
Convention Cab	215-462-0200
Liberty Cab	215-389-8000
Maxi Taxi Limo	215-333-4000
Olde City Coach	215-338-0838
Philadelphia Taxi	215-232-2000
Quaker City	215-728-8000
Victory Taxi Radio	215-225-5000

August Historical Events In Chemistry

by Leopold May The Catholic University of America Washington, DC 20064

August 1, 1772 Joseph Priestley discovered oxygen on this date.

August 3, 1958 Fifty years ago, the U.S. nuclear powered submarines, Nautilus and Skate, crossed under polar ice cap on this date.

August 4, 1859



William Sutherland, who was born on this date, did research on relationship between viscosity of gas and temperature using the Sutherland Constant and the dissolution of strong electrolytes. He also studied the viscosity of gases and liquids, molecular attraction, valency, ionization, ionic velocities, atomic sizes, and presented an electronic theory of matter.

August 8, 1902



Paul A. M. Dirac, who did research in relativistic quantum mechanics including electron spin (Dirac equation), was born on this date. In 1933, he shared the **Nobel Prize in Physics** with E. Schrödinger for the discovery of new productive forms of atomic theory.

August 9, 1776



Amadeo Avogrado, who was born on this date, theorized that the number of particles in any gas is always the same for equal volumes

August 11,1933



Seventy-five years ago, Bristol-Myers was incorporated on this date.

August 14, 1777



Hans C. Oersted, who was the first to isolate aluminum and did pioneering studies in electromagnetism, was born on this date.

August 15, 1875

Charles A. Kraus, a researcher on electrolytes, was born on this date. In 1939, he served as president of the ACS

August 19, 1745



Johan G. Gahn, who was born on this date, discovered and isolated manganese in 1774. He and Karl W. Scheele discovered phosphoric acid in bones in 1770.

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August 21, 1882



Warren K. Lewis, a MIT chemical engineer, was born on this date. He did research in thermal properties of materials and colloids.

August 23, 1933



Seventy-five years ago on this date, Robert F. Curl, Jr., was born. He is a researcher in microwave and infrared spectroscopy and shared the **Nobel Prize in Chemistry** in 1996 with Harold W. Kroto and Richard E. Smalley for their discovery of fullerenes.

August 27, 1913



Martin Kamen was a codiscoverer of carbon-14 with Samuel Rubin in 1940. He was born on this date.

August 28, 1878



George H. Whipple, a researcher on pernicious anemia and diabetes, was born on this date. In 1934, he shared the **Nobel Prize in Physiology or Medicine** with George R. Minot and William P. Murphy for their discoveries concerning liver therapy in cases of anemia.

August 31, 1887



Frederick A. Paneth, who was born on this date, was a researcher on age of rocks by measuring helium formed.

Additional historical events can be found at Dr. May's website, http://faculty.cua.edu/may/Chemistrycalendar.htm.

Looking for Comestibles in Philly, III*

Tony Addison, June 2008

The Philadelphia Convention Center's main entrance is at 12th & Arch Streets. The combination of real Philadelphia character and proximity to the Convention Center makes the *Reading Terminal Market* a must-try location for breakfast, lunch or an early dinner (not fancy). Enter on the east side of 12th St., between Arch St. & Market St.: 8 AM - 6 PM, Sun 9 - 4. You can eat in or take out, from a variety of seafood, sandwich, pizza, deli, bread, coffee, pastry and Pennsylvania Dutch (not for the lipophobe) stands. This venerable and bustling food bazaar also has bookstores and grocery, spice, fish, Lancaster County poultry and sausage, fruit and vegetable outlets, and even caters to turophiles. Also close to the Convention Center are the *Independence Brew Pub* (\$, 1150 Filbert St. — good beer, OK food); *Maggiano's* (\$, 1201 Filbert St.) and the eateries of Chinatown. A few blocks west is the city's newest and tallest skyscraper, the Comcast Center "thumb drive;" the *Market* food court in the lower level is a cut above the usual mall variety; you can sit out on the plaza at street level with your lunch; check out the neat video display in the lobby.

Philadelphia has a vibrant Chinatown with many restaurants, just a few of which are *Joy Tsin Lau* (\$, 1026 Race St., I like the endless dim sum, Sun-Sat 10-3:30); *Ocean City Seafood Restaurant* — plastic tablecloths, but a large selection, including dim sum (\$, 234 N 9th St.); *Lee How Fook* (\$, 219 N. 11th St.); *Golden Phoenix* (\$, 911 Race St.); *Imperial Inn* (dim sum, \$, 146 N. 10th St.); *Shiao Lan Kung* (small BYOB \$, 930 Race St.)

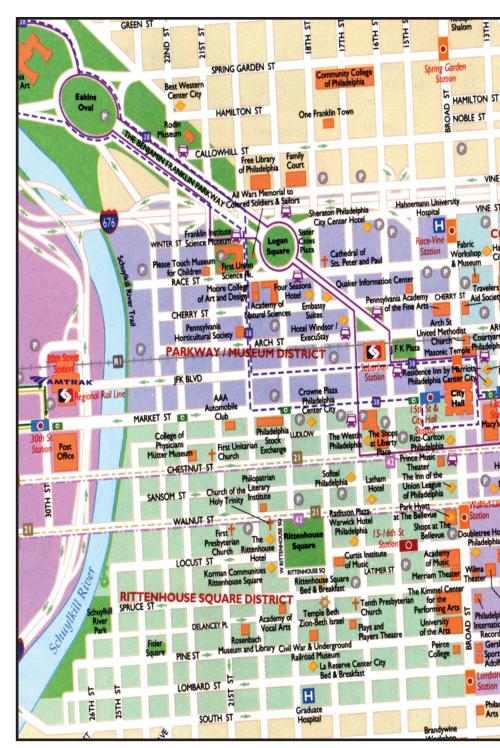
The majority of the dining establishments listed below are also within walking distance of the Convention Center. Remember that Philly is laid out on Ben Franklin's grid system — a north-south Center City block is about a minute long to walk, an east-west one about 2 minutes long. The Y-axis is Broad (14th) Street. Our pricing guesses devolve from "\$\$"=medium=\$35-\$45. There's also a 7% sales tax whacked on top in Philly. A tip of about 16-18% is considered normal.

- Well-established and very popular restaurants include George Perrier's inestimable, worldclass *haute cuisine* house, *Le Bec-Fin* (\$\$\$\$, 1523 Walnut St.); *The Fountain* (French, \$\$\$, Four Seasons Hotel, 18th St. & Ben Franklin Parkway); *Susanna Foo* (Sino-French, \$\$\$, 1512 Walnut St.); *Vetri* (excellent Italian, \$\$\$, 1312 Spruce St.); *Tangerine* (Mediterranean, \$\$\$, 232 Market St.).
- Following on from these are some Quite Trendy places, including *Alma de Cuba* (Latin, \$\$\$, 1623 Walnut St.); *Buddakan* (fusion/oriental, \$\$\$, 325 Chestnut St.), Le Bec-Fin's sister establishment *Brasserie Perrier* (French nouveau, \$\$\$, 1619 Walnut St.), *Audrey Claire* (Mediterranean, no credit cards, BYOB, \$\$, 276 S. 20th St.); *Pasion!* (Latin, \$\$\$, 211 S. 15th St.) However, if for any of these last dozen or so, you did not already make a reservation a while ago, you are probably out of luck. On the other hand, I appreciate *Fork* (\$\$, 306 Market St.), where you can lunch al fresco. Several other places offer that opportunity, including *Rouge* (205 S. 18th, \$\$\$) and *Table 31* (1701 JFK Blvd., \$\$).
- A few other upscale Americans are: XIX in magnificent domed 19th floor penthouse room (seafood/American, \$\$\$, Park Hyatt/Bellevue, 200 S. Broad St.); The Grill at the Ritz-Carlton American/continental you can have cocktails beforehand in the vault of this former bank keep promising myself to try this one (\$\$\$, 10 S. Broad St.); and Rae in the Cira Center building adjoining the Amtrak Station at 30th St., \$\$\$.
- You prefer seafood? *Devon Seafood Grill* (\$\$, 225 S. 18th St.) has been recommended to me by colleagues; *Philadelphia Fish & Co.* (\$\$, 207 Chestnut St.); *Spasso* (\$\$, 34 S. Front St.); *Aoi* (sushi house, \$\$, 1210 Walnut St.); *Sansom St. Oyster House* (\$\$, 1516 Sansom

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- St.); Oceanaire Seafood Room (\$\$, 700 Walnut St.); Dmitri's (Mediterranean, \$\$, 2227 Pine St.); DiNardo's Famous Seafood (\$\$, 312 Race St.); Kisso Sushi Bar (\$\$, 205 N. 4th St.); McCormick & Schmick (an Oregon Irish chain?, \$\$, 1 S. Broad St.).
- Italian: Refined Northern style is easy to find in Philly; as you move southeast, the brown reductions give way to tomato-based sauces, known locally as "gravy:" *Branzino* one of our BYOB faves sometimes rushed service, but a great menu (\$\$, 261 S. 17th St.); *Bistro La Viola* I like this BYOB, too (\$\$, 253 S. 16th); *La Viola Ouest* new extension of *La Viola*, BYOB (252 S. 16th); *Ernesto's 1521 Café* (\$\$, 1521 Spruce St., BYOB); *Lo Locanda* (\$\$, 130 N. 3rd St.); *Le Castagne* slick décor, good food and service I like this classy place (\$\$, 1920 Chestnut St.); *Ristorante Valentino* (Italian BYOB, \$\$, 1328 Pine St., frequented by Drexel Chemists); *Trattoria Prima Donna* a wine list, but free corkage if you want to BYOB (\$\$, 1506 Spruce St.); and *Portofino* (\$\$, 1227 Walnut St.).
- French: outnumbered by Italian this is Philadelphia, after all: *Caribou Café* French bistro style, a lunchtime fave (\$\$, 1126 Walnut St.); *Nan* OK, it's a trek (take a cab to the corner of 40th & Chestnut Sts., \$\$), but we've had some very nice meals at this French-with-Thai overtones BYOB; *LaCroix* (\$\$\$, the Rittenhouse Hotel, just south of Walnut and east of 18th St.); *Le Bar Lyonnais* (\$\$\$, 1523 Walnut St., underneath Le Bec-Fin); *Rouge* (\$\$, 205 S. 18th St); *Chez Colette* (\$\$\$, Sofitel Hotel, 120 S. 17th) this quiet venue has studiously upscale-*bistro* décor and Swissly precise food and service.
- Mexican: not a forté of Philly, but a newcomer (*Azul Cantina*, \$\$, 10th & Spruce St.) may be worth looking at, while people said to me, "You must include *Zocala*" (\$\$, 36th & Lancaster Ave.) which really is good.
- You want a steakhouse for your expense account? *Prime Rib* (\$\$\$, 1701 Locust St.); *Capital Grille* (\$\$\$, 1338 Chestnut St.); *The Palm* (\$\$\$, Hyatt/Bellevue 200 S. Broad St.); *Ruth's Chris Steakhouse* (\$\$\$, 260 S. Broad St.; I dare you to consume three courses at one sitting); *Morton's of Chicago* (\$\$\$, 1411 Walnut St., with cigars); *Smith & Wollensky* (\$\$\$, Rittenhouse Hotel see above); *Ted's Montana Grill* (\$\$, 260 S. Broad St.) has some less expensive selections. I sat at the kitchen portion of the bar last week and got my bison steak served straight over the counter off the grill. I was hoping Jane would show up and buy me my Anchor Steam Ale (on tap), but no luck.
- Interested in places with noteworthy wine selections? *La Famiglia* (Italian, \$\$\$, 8 S. Front St.; extensive Italian wine list at this Philly favorite); *Twenty-One* (American, \$\$, upstairs at 2005 Market St.); *Ristorante Panorama* (Italian, \$\$\$, 14 N. Front St. extensive wine bar).
- Places with music: Swanky Bubbles (oriental, \$\$, 10 S. Front St.); the Plough & Stars (Irish, \$\$, 123 Chestnut St.).
- Greek: South Street Souvlaki (\$, 509 South St.); Effie's (\$\$, 1127 Pine St. outdoor tables); Estia (seafood flown in from the Mediterranean, \$\$\$, 1405 Locust St.).
 - Thai: Siam Lotus (\$, 931 Spring Garden St.).
 - Vietnamese: Vietnam (\$, 221 N. 11th St.); Vietnam Palace (\$, 22 N. 11th St.)
 - Others ...

Fogo de Chao (the more-meat-than-you-can-eat Brazilian churrascaria chain, \$\$, 1337 Chestnut St.) will be joined in summer by *Chima* (20th St. & JFK Blvd.); *The Black Sheep* (Irish moderne dining upstairs, \$, 247 S. 17th St.); *Cuba Libre* (Cuban, \$\$, 10 S. 2nd St. — spirited décor, some routine dishes, some very good ones); *Palace at the Ben* — a new Indian



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restaurant (\$\$, 834 Chestnut St.); *Mission Grill* (Southwestern US, \$\$, 1835 Arch St.); *TirNanÓg*(trad.Irishpub,\$\$,1600ArchSt.); *Tequila's*(Mexican,\$\$,1602LocustSt.); *CityTavern* (18th century" menu, \$\$\$, 138 S. 2nd St.); *Ariana* (Afghani, \$, 134 Chestnut St.); *Café Spice* (Indian, \$\$, 35 S. 2nd St.) — OK, so it's part of a chain, but it's interesting; *Shivnanda* (Indian, \$\$, 114 Chestnut St.); *Sawan's Bistro* (Mediterranean, \$, 116 S. 18th St.— go for the food, not the ambience); *Buca di Beppo* — I went to one of these once. Send your students troughing (\$, 258 S. 15th St.); *Ludwig's Garten* (German, 1315 Sansom St. — big beer selection); *Friday Saturday Sunday* (retro continental, \$\$, 261 S. 21st St.)

Visitors from some other areas may suffer sticker shock at the wine markups in Philadelphia restaurants. The reasons for this are (i) they have to buy their wine from the Pennsylvania Liquor Control Board's state monopoly, (ii) there was an Unfortunate Incident in Johnstown a little while ago, and (iii) the number of liquor licenses is limited, so they cost $\$n \times 10^4$ each, pushing the restaurateurs to pile the charges on. Consequently, the bottle of wine that you can buy in a California supermarket for \$10 may run you around \$40 in a Philly restaurant. The argent lining in this aerosol is that the limited supply of licenses has led to a plethora of quite good BYOB restaurants. In addition to the Italians mentioned above:

La Bohème (French, \$\$, 246 S. 11th St.); Aden (Mediterranean, \$\$, 614 N. 2nd St.)

Sahara Grill (Middle Eastern, \$, 1334 Walnut St. We order the delicious appetizer sampler plate as a main course. Treat your research group for dinner at this small BYOB and get out with your wallet intact. Oh, no, did I let the cat out of the bag? Reserve for >2, or get there before 6:45); Kanella (Greek, \$\$, 941 Spruce St.); Taj Mahal (Indian, \$, 1903 Chestnut); Kabul (Afghani, \$, 106 Chestnut St.); Passage to India (Indian, \$, 1320 Walnut St.); Minar Palace (Indian, \$, 1304 Walnut St.).

I have to admit, I'm partial to Indian food. I suggest an IPA or a Samuel Adams Summer Ale (or two) as a good accompaniment. Commendable IPAs generally available here include the hoppily superb Victory *Hop Devil*, Stoudt's, Harpoon, Dogfish Head and Sierra Nevada. Do try the other local (*Victory, Stoudt's, Dock Street, Yard's, Phila. Brewing Co., Flying Fish, Triumph*) suds as well. If you prefer something a touch lighter, then you can find *Blue Moon* or Harpoon's *UFO* hefeweizen. If you like wine with your Indian/Afghani meal, my choices would be something crisp, like a *Wolf Blass Gold Label* or *Leasingham Bin 7* Riesling, a *Chateau du Cléray* Muscadet, a *Kupfelwieser* Pinot Blanc or a dry Sauvignon Blanc from New Zealand. I can't imagine a red not tasting funny with Indian, but

You can buy wine and liquor at Pennsylvania Liquor Control Board stores. A few years ago, the PLCB, perhaps accidentally, installed a new Board Chairman (Jonathan Newman) who actually knew the difference between Chateau Lafite and Thunderbird, so the selection improved remarkably. In 2006, Pennsylvania voters rebelled against our often self-satisfied state legislature, who had just elected substantial salary increases for themselves and the judiciary, by voting a large number of them out of office. To their credit, several state lawmakers with consciences donated these raises to charity, while a senior judge brought suit to reverse the raises (including her own), but the suit was defeated in Commonwealth Supreme Court (did the Supremes receive the raises too ?). One politico, Joe Conti, said he couldn't give the raise back, because he had already spent it on a new water heater for his vacation home. Anyhow, he got unelected, and unfortunately, when Ed Rendell became Governor, he appointed Conti as the CEO over the head of Newman, who resigned, citing the "heavy-handed, political" method. Joe does not claim to be an expert on matters viticultural. He was recently characterized in a letter to the *Philadelphia Inquirer* as "a political hack" with the writer wondering "what the otherwise stellar Ed Rendell owed him." Rendell, a former Philly mayor, appears to be a consummate politician who spends a lot of his time

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trying to arm-twist recalcitrant state legislators into forward movement, and some folks were asking if Ed was pushing for nomination as Hillary's veep.

About 20% of the price of a bottle of wine is an emergency tax that goes toward the Pennsylvania Politician's Walking-Around Money Fund — oops, I'm so sorry, I meant the Johnstown Flood Relief Fund. The Johnstown Flood was only just in 1889, but one remains hopeful that the Relief will soon be consummated and the tax repealed. Anyhow, there are "regular" stores (as at 5 N. 12th Street & 1628 JFK Blvd., Mon-Sat 9/10 AM-7/9 PM, closed Sunday, pass the Thunderbird) and also "premium stores" which are more consumer-friendly by having a better selection and longer trading hours (Mon-Sat 9-9, Sunday! 12-5) at 1218 Chestnut Street; 1913 Chestnut St.; 32 S. 2nd St.

And if you want to buy beer? No, you have to go to either (a) a Beer Distributor, where you can purchase only by the sealed case, or (b) a bar, licensed deli or pizzeria, where you can buy a six-pack (markup *ca.* 100%— live with it). However, there are numerous quite good places where draft and bottled brews are available. This is no idle comment, as Philadelphia has now become known internationally as a hotbed of craft brewing and microbreweries. Places in Center City where you can try these brews and get something to eat as well include *The Monk's Café* (Belgian — with a big selection of domestic and imported beers, good burgers and mussels and yet more mussels; I like the *Boudin Blanc* sausage sandwich, \$, 264 S. 16th St. — get there early); *Jose Pistola's* (Mexican, with Belgian beers, \$, 263 S. 15th St); *Good Dog Bar* (great burgers, \$, 224 S. 15th St.); *Nodding Head Brewery* — reasonable bar food, piped-in rock (\$, 1516 Sansom St.). Slightly further away (three blocks east of Independence Hall) is another beer heaven — *Eulogy Belgian Tavern* (136 Chestnut Street).

A bit further afield are some other eateries noteworthy for their particular ambience:

- The *Philadelphia Museum of Art* itself has pleasant eateries, including a vastly improved cafeteria, a restaurant and a café. Nearby are *Figs* (Moroccan, \$\$, Meredith & 25th Sts.), the *London Grill* (American, \$\$, 2301 Fairmount Ave.) and *Jack's Firehouse* (novelly eclectic, \$\$, 2130 Fairmount Ave.).
- Famous 4th St. Delicatessen (\$, 700 S. 4th St.) the best of Philly's not many delis east of the Schuylkill River.
- Fez (Moroccan \$\$ 620 S. 2nd St.) includes belly-dancers.
- The *Victor Café* (traditional S. Italian, \$\$, 1303 Dickinson St.) The proprietor possesses a huge collection of opera music (much on 78s, on my last visit), the wait staff are nearly all classical singers in training, and at various random points in the evening, these two factors combine delightfully. In other words, you go for the entertaining ambience.
- *Moshulu* (American, \$\$\$) the recently refurbished four-masted restaurant floating on the Delaware at Penn's Landing.
- Geno's Steaks; Pat's Steaks (Philly cheese steaks \$, both S. 9th St. & Passyunk Ave.). I include these guys not as sources of haute cuisine, but as they claim the fame of being the original sources. The classical Philly cheese steak is made with onions, thinly-sliced beef, American cheese (though I suggest substituting provolone when possible) and a split long roll, onto the grill in that order. Actually, if you want a Real (Wo)Man's Steak Sandwich, then we have to wait for an ACS meeting to be held in the Hunter Valley.
- The Melrose Diner (American, \$, 1501 Snyder Ave.) I can't omit this classic American diner, can I? The Oak Lane Diner (6528 N. Broad St.) is noteworthy as a piece of Philadelphia Art Deco architecture. Hey, speaking of architecture, I have to mention a couple of my

favorite lesser-appreciated Philly gems. One is the Art Deco eastern facade of Suburban (ex-Pennsylvania RR) Station, which you can contemplate from the corner of 15th & JFK. Not far away is the 1928 WCAU Building, at 1620 Chestnut St. The Loew's Hotel (1200 Market St., includes *SoleFood* restaurant, \$\$\$) now inhabits what looks like a perfectly ordinary 1960s skyscraper. However, this was actually built in 1929-32, contemporaneously with the Chrysler and Empire State buildings, as the home of the PSFS bank. As far as I can tell, it thus bears the distinction of being the first Modernist skyscraper in all of the Americas. Take a dekko at its Art Deco lobby and bar. A bit further south and east, enter the Curtis Building via its 6th St. entrance just north of Walnut St., near Independence Hall. The lobby is *ab originale* from 1916, and the west wall comprises Maxwell Parrish's magnificent *Dream Garden* mural, executed in favrile glass by Louis Comfort Tiffany. This was Philadelphia's best-kept secret until about 1998, when a Las Vegas mogul created a local uproar by putting a down-payment on it for his casino. Hey, no way, buddy!

* I: the Catalyst, August 1984; II: the Catalyst, August 2004. © ACS Philadelphia Section, 2008.

Green Chemistry Symposium

The Graduate Student Symposium Planning Committee (GSSPC) was created in the spring of 2005 to involve graduate students in the American Chemical Society, in general, and at biannual national meetings, in particular. Previous GSSPC members, who held symposia at past national meetings, select a new GSSPC to take the reigns and plan a future symposium. Each new GSSPC is then tasked with planning a symposium to be held at a national meeting for the ACS. The planning required for such an event includes, but is not limited to, topic selections, fundraising, speaker recruitment and logistical arrangements. The primary objectives of the GSSPC are:

- To provide a national forum in which graduate students may make their views known
- To provide an outlet in which graduate students can develop their professional network and leadership skills
- To provide a sustainable source of quality programming for Chemical Education, the ACS sponsoring division
- To encourage current and future membership in the ACS by targeting programming to the newest generation of professional chemists.

The University of Connecticut Graduate Student Symposium Planning Committee (GSSPC) is honored to have the opportunity of planning a stimulating symposium at the 236th ACS National Meeting, August 2008. The UConn GSSPC, as well as people around the world, has recognized the importance of transitioning chemistry toward the use of greener chemistry within academia and industry. It is everyone's responsibility to promote and maintain a sustainable environment; including the chemists responsibility to the continued evolution of green chemistry.

Our symposium, titled "Transitioning into Green Chemistry," is a current hot topic among progressive chemists. We will strive to provide the symposium audience with a number of resources and ideas to further accelerate the implementation of green chemistry in both academia and industry. Invited speakers will address topics from recent advances in green chemistry at academic institutions to the implementation on the industrial scale. Furthermore, the bridge, connecting academic achievements into technology applications, will be addressed.

Upon sound planning and smooth execution, our committee anticipates that the result of this symposium will raise awareness and motivate chemists in all areas to consider and implement green chemistry practices in their lab regardless of the institution or corporation environment; achieving sustainable procedures and processes that will improve our environmental impact.

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PHUN FOR KIDS

The following venues mentioned in our article on Philadelphia's Major Historic Sites and Museums are recommended for kids: Independence Seaport Museum, National Constitution Center, Please Touch Museum, Adventure Aquarium (New Jersey State Aquarium), The Franklin Institute Science Museum, and The Academy of Natural Sciences.

In order to cover a lot of ground and get your bearings, there two especially kid friendly possibilities:

Ride The Ducks

ADDRESS: Ride The Ducks boards at the corner of 6th and Market Street right next

to the Independence Visitor Center.

HOURS: Ride The Ducks adventure departs frequently, 7 days a week

COST: Adults (ages 13+) \$25.00 Children (ages 3-12) \$15.00 Seniors (62+)

\$24.00 Infants (0-2) Free

CONTACT: http://www.phillyducks.com/ 877-887-8225; Office - 215-351-9989

Experience Philadelphia sightseeing fun from a duck's eye view on Philadelphia's original duck tour. Travel on land and water in one amazing vehicle. Tour historic Philadelphia and SPLASH into the Delaware River at Penn's Landing. Ride The Ducks is the fun thing to do in Philadelphia and it's the best Philly sightseeing tour.

If you plan to wait to purchase your tickets once you get to the city, you can do so at our ticket kiosk one block south of our boarding location at 6th and Chestnut Streets or inside the Independence Visitor Center. We encourage you to buy your tickets online or by phone in advance to ensure you get a seat on the tour of your choice.

Ride The Ducks hits all the hot spots within the historic district!

See: Independence Hall, The Liberty Bell, Betsy Ross' House, National Constitution Center, and scenes from the movie *National Treasure*.

Philadelphia Trolley Works

HOURS: Daily 9:30 AM - 5:00 PM

COST: Adult \$33.95, Senior \$26.95, Child \$10.95

CONTACT: http://www.phillytours.us/tours/tourDetail.cfm?tour_id=1265

Allow Philadelphia's Premier Tour Company, Philadelphia Trolley Works, to show you the sights and tell you the tales of a city that cheered for Rocky, forged a nation and is home to the Liberty Bell and Independence Hall.

The following activities and venues are kid phriendly and phun and they might even learn something!

Breakfast with Ben

ADDRESS: Independence Visitor Center, 1 N. Independence Mall West,

Philadelphia, PA 19106

HOURS: Saturday, 9:00 AM to 10:30 AM

COST: Adults: \$25.00 Children: (ages 3-12) \$20.00 http://historicphiladelphia.org 800-537-7676

Enjoy breakfast with one of America's founding fathers, Benjamin Franklin, every Saturday morning. Get a steady diet of wit and wisdom while he tells you about everything from his swim fins to his bifocals, shakes hands with the kids, and even poses for photos. Each guest receives a goodie bag of souvenirs to mark their truly historic event.

You are invited to an interactive breakfast and discussion with one of our nation's most influential founding fathers! Adults and children alike are able to chat with Ben, ask questions about his life and work and even pose for pictures. A delicious breakfast is served to Dr. Franklin's guests and each participant will receive a goodie bag. Advance reservations and payment are required and will be accepted until 24 hours prior to the start of the event. Breakfast runs from 9 AM-10:30 AM on most Saturday mornings and is hosted in the Independence Ballroom in Independence Visitor Center, located on the Mezzanine Level.

Colonial Kids' Quest

ADDRESS: Independence Living History Center, 115 S. 3rd Street, Philadelphia,

PA 19106

HOURS: Fri-Sat 11:00 AM

COST: \$15.00

CONTACT: http://historicphiladelphia.org 215-629-4026

The Declaration of Independence is missing! Help Phineas Bell search for clues at historic sites that will save the day. Along the way, find his runaway dog, Freedom, and meet helpful two-legged and four-legged friends. Colonial Kids' Quest is a stroller-friendly Whodunit

that's great for detectives of all ages!

Liberty Bell

ADDRESS: 6th and Chestnut Streets, Philadelphia, PA 19106

HOURS: Hours: Daily 9 AM-5 PM. You can also see the Liberty Bell at any time

through the full-sized windows at 6th and Chestnut Streets.

COST: FREE

CONTACT: http://family.go.com/ 215-965-2305

A visit to the Liberty Bell is a must. Housed in a glass pavilion, the bell is visible at all times from outside the building. But it's worth the quick trip inside to see the interactive exhibits, including an x-ray of the famous crack, photos and narratives, plus a film produced by the History Channel. Along with its well-known history, the exhibits tie the bell to more current events and portray it as a beloved symbol of freedom around the world. It's a great starting point for family discussions. Prepare young children for the "no touch" rule. The Liberty Bell itself is set off from the public with ropes, but it's very easy for little ones to duck underneath. (A metal cast of the bell is nearby for those who can't resist touching.) You don't need a ticket to get in, but you will need to pass through security, which searches all bags. The Liberty Bell pavilion has no public restrooms, so make a quick trip to the Independence Visitor's Center next door if necessary.

Lights of Liberty Show

ADDRESS: 620 Chestnut Street, Philadelphia, PA 19106

HOURS: Tues-Sat dusk - 11:15 PM

COST: \$10 - \$20 CONTACT: 877-462-1776

Lights of Liberty is an astonishing multimedia show that drops you smack into the middle of America's fight for independence. After dark, you will don a lightweight audio headset and follow a costumed guide through cobblestone streets where slides of hand-painted images, some up to five stories high, are projected onto Independence Hall and other historic buildings. Kids and grown-ups will enjoy the swelling music, amazing sound effects, and patriotic stories told by Walter Cronkite, Ossie Davis, and Charleston Heston. The kids' version is narrated by Whoopi Goldberg. This walking tour is on cobblestone streets, so

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leave the stroller behind and carry babies in a frontpack carrier. Smaller children will enjoy wearing headsets. Opt for the kids' version, even though it's for slightly older children. Be prepared to control the volume and handle reactions to the sounds of rifles and cannons. Buy tickets in advance. A maximum of 50 people are admitted per tour, and it's first come, first served. You can buy tickets in advance on the website. Up to 6 shows per hour Tues-Sat Dusk - 11:15 PM. Dates and times vary depending on season and sunset. Check the website for the schedule.

Philadelphia Zoo

ADDRESS: 34th Street and Girard Avenue HOURS: Daily 9:30 AM - 5:00 PM

COST: Adult \$17.95, Child (age 2-11) \$14.95, Child (under 2) Free

There are additional charges for some attractions

Parking \$12.00

CONTACT: http://www2.philadelphiazoo.org/

Visit America's first Zoo and enjoy the sights and sounds of more than 1,600 rare and exotic animals all year long. The Zoo features America's first white lions, the country's foremost Reptile and Amphibian House, newly renovated Rare Animal Conservation Center and the country's newest home for primates and lemurs; PECO Primate Reserve. Enjoy the 42-acre Victorian gardens, animal rides, barrier-free exhibits, talking storybooks, swan boat rides and so much more!

If you are planning to take the kids to a number of the sites the **CityPass** may save you some money. **CityPass** includes admission to Philadelphia Zoo, Adventure Aquarium, National Constitution Center, Philadelphia Trolley Works, The Franklin Institute Science Museum, and your choice between Independence Seaport Museum or The Academy of Natural Sciences.

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CONTACT: http://philadelphiaokay.com/

CityPass is simple. Purchase your CityPass at the first attraction you visit or online now. You will have nine days to visit six famous Philadelphia attractions. You avoid most ticket lines. Simply present your CityPass booklet on your way into each attraction. The agent will remove that attraction's ticket, and you're in. (Tickets are void if removed from the CityPass booklet).

If traveling with children under age 3 please review the CityPass Pricing, for children under age 3, it still may prove to be a value including saving time in ticket lines. Some of the included attractions DO require children age 2-6 to purchase an admission ticket.



NOBCChE Recognizes A Trailblazer

Tony Dent, Ph.D.



At its 35th annual conference in Philadelphia, PA in March, the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers presented the 2008 Percy L. Julian Award to Dr. Sharon L. Haynie, a Research Scientist at the E.I. DuPont de Nemours and Company's Experimental Station in Wilmington, DE. The Percy L. Julian Award is the most prestigious award presented annually by NOBCChE for significant contributions in pure and/or applied research in science or engineering. Percy L. Julian, PhD, for whom the award is named, was an African-American who obtained his BS in Chemistry from Depauw University in 1920. After facing various discriminatory practices in the United States educational system in the '20s, he went on to receive a PhD from the University of Vienna in 1931. Upon returning to the US, he worked in academia, industry and founded his own research laboratory.

Percy Julian was one of the great scientists of the 20th century. In a chemistry career spanning four decades, he made many valuable discoveries, for which he was awarded over 100 patents, 18 honorary degrees, and membership to the prestigious National Academy of Sciences. Though he had over 100 patents and 200 scientific publications, his most notable contribution was in the synthesis of steroids from soy products, which led to the discovery of cortisone.

Dr. Haynie works in biochemical sciences and engineering at DuPont's Experimental Station. For most of her 24-year tenure, she has been in the Central Research & Development Department. Her research activities have ranged from new materials for the rapeutic use (e.g., vascular graft; antimicrobial materials, medical adhesives) to biocatalysis for green chemistry applications. According to our SciFinder analysis, Dr. Haynie generated 28 hits including 10 patents with DuPont during the period 1991-2008. She was a member of a large DuPont/Genencor team that received the 2003 EPA Presidential Green Chemistry Award for New Innovation in developing a commercial bioprocess to 1,3-propanediol. Sharon has also served brief tenures as adjunct professor of chemistry at Delaware State University and the University of Delaware.

Sharon L. Haynie was born and raised in Baltimore, MD and educated in the Baltimore City Public Schools where she had her first chemistry course in 8th grade because her science class was selected to participate in a national pilot study on the effectiveness of teaching chemistry in junior high school. As an undergraduate at the University of Pennsylvania, she enjoyed research experiences ranging from organic synthesis. biophysics and biochemistry to biochemical engineering. This broad exposure to, and enjoyment of, the chemical sciences led her to the Massachusetts Institute of Technology (1977) 1981, PhD, Chemistry) where she studied in an atmosphere of broad, diverse science with Professor George Whitesides. Sharon enjoyed a three-year stint at the former AT&TBell Laboratories before she joined the research community of the DuPont Company at the Experimental Station Laboratories.

Dr. Haynie was the 2005 NOBCChE Henry Hill Lecturer at the Los Angeles meeting. Throughout her career, Sharon has been active in various professional service communities. In 1988, she served on the sub-committee that organized the technical program for NOBCChE's 15th annual conference that was also held in Philadelphia, PA. Since then, she has been very active in the local NOBCChE Delaware Valley Chapter, serving as a moderator for the science bowl competitions, as well as serving as a role model.

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In addition to her NOBCChE membership, Dr. Haynie is a long-time member of the American Chemical Society (ACS). She is currently serving terms in the ACS governance and the Chemical Sciences Roundtable of the National Academy of Sciences. She has served as a past-chair of the Philadelphia Section, ACS, and as co-chair of the 2007 ACS Middle Atlantic Regional Meeting. For 10 years, Dr. Haynie served as a research mentor for a high school intern through ACS Project SEED.

Beyond science service, Sharon enjoys volunteer work that strengthens individuals and improves the Philadelphia community where she lives. These activities have been diverse and have ranged from service on community policing advisory boards, science textbook reader for Recording for the Blind and Dyslexic to tutoring adults with basic literacy needs. She has a passion for reading, basketball, jazz, visual and vocal arts, walking and traveling.

In her post-luncheon Percy L Julian Lecture, entitled, "Reflections of a Rover," Dr. Haynie enthralled the audience with aspects of her professional career and early background. She noted that over the years at DuPont, she has moved about to provide "assistance" on many projects. The 10 US patents to which she contributed is testimony to that accomplishment. As Pennsylvania's governor Ed Rendell noted during his brief conference visit, "this is one impressive lady."

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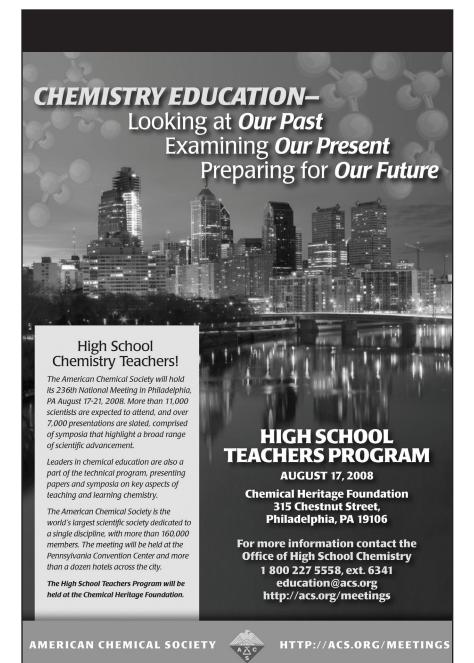
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The review process will begin September 1, 2008, and continue until the position is filled

The anticipated starting date is July 1, 2009 Pending budgetary approval

Rutgers University is an affirmative action/equal opportunity employer and encourages applications from qualified women and members of minority groups.



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Morning

HIGH SCHOOL PROGRAM

Mark Michalovic starts the High School Day Program with stories about chemistry in the time of Ben Franklin. Nicole Gillespie follows with a presentation on retaining high quality science and math teachers in the profession. Ray Howanski speaks about a new methodology for teaching chemistry, "modeling chemistry". Sherri Rukes follows with a hands-on activity using polymers in teaching density. Bette Bridges presents a series of safe, simple demonstrations for teachers. John Fortman concludes the morning session with a lighthearted look at some colonial chemistry.

CHED HIGH SCHOOL/ COLLEGE INTERFACE

LUNCHEON

A feature of each national meeting, the High School/College Interface Luncheon brings together educators from different levels with the goal of facilitating an exchange of ideas. This activity is organized by the ACS Division of Chemical Education (CHED).

Pre-college registrants should not purchase a ticket to the High School/College Interface Luncheon; tickets for pre-college registrants to this event are generously provided by the ACS Division of Chemical Education (CHED).

LUNCHEON SPEAKERS

The High School/College Interface Luncheon speakers, Lee Marek and Yvonne Twomey, present a look at the people, places and points of interest they have visited over the years in their annual trips to important sites related to the history of science, especially chemistry.

Afternoon

HIGH SCHOOL PROGRAM

The afternoon will feature two concurrent symposia (D and E) from which participants can choose. The groups will re-combine at the end of the day for a closing session.

Symposium D

Derrick Wood and Mary Cutillo speak about long-term case studies in high school labs. William Laufer follows with a presentation on the application of inquiry techniques in the lab. Harvey Gendreau winds up this strand with a discussion about Advanced Placement (AP) exams in the AP classroom. After this session, participants rejoin Symposium E participants for the dosing sessions.

Symposium E

Connie Blasie speaks about the University of Pennsylvania's Master of Chemistry Education Program and the Penn Science Teacher Institute (PSTI) and how local high school teachers can get involved. Victor Tortorelli follows with a discussion about Ursinus College's "Science in Motion" program and how local teachers can participate in the program. Joe Schmuckler and David Majerich will speak about the benefits of a different approach to using demonstrations in classes. After this session, participants rejoin Symposium D participants for the dosing sessions.

Closing Sessions

Terri Taylor will discuss the benefits of using ChemMatters in high school chemistry classrooms. Erica Jacobsen, John Moore, Linda Fanis and Laura Slocum share a hands-on activity from the Journal of Chemical Education designed to help teachers facing inclusion and accessibility issues in their classrooms. The day will end with a wrap-up and evaluation

EXPOSITION

Network with technical professionals from more than 300 exhibiting companies inside the ACS Exposition. Investigate new technology and techniques in instrumentation, publications, scientific software and hardware, analytical, and chromatographic, laboratory and safety equipment, and services.

You can visit the exhibiting companies and organizations on Monday, August 18, and Tuesday, August 19, from 9:00 A.M. – 5:00 P.M. and Wednesday, August 20, from 9:00 A.M. – 1:00 P.M. in Halls A & B of the Pennsylvania Convention Center.



REGISTRATION

All attendees must register for the meeting in order to participate in the technical sessions and programs. Registration provides full access to the special High School Chemistry Day program on Sunday as well as the entire ACS meeting on Sunday through Thursday and the Exposition starting on Monday.

The cost for registration for Pre-college teachers is \$85.00. Early registration is between May 1 and July 25, 2008. Register after that or on-site and you will need to pick up your badge at the Pennsylvania Convention Center.

PROFESSIONAL DEVELOPMENT DOCUMENTATION

Attendees can track professional development (based on clock hours) for sessions attended at the ACS national meeting. On completion and submission of ACS forms, participants will be mailed a certificate documenting their participation in the conference

REGISTRATION METHODS

There are five ways to register for the meeting:

(credit cards only



Online: http://www.acs.org (credit cards only). Phone: 508-743-0192 or 800-251-8629, M - F, 9 AM to 5 PM EST



Fax completed form with payment to: 508-759-4552 (credit cards only) by July 25, 2008



Mail completed form with payment to: ACS Registration c/o CDS, 107 Waterhouse Road, Bourne, MA 02532 by July 25, 2008



On-site: Pennsylvania Convention Center

DEBORAH EILEEN KILMARTIN 1955-2008



Deborah E. Kilmartin died May 6th at Delaware County Memorial Hospital in Drexel Hill, PA at age 53, following complications from surgery earlier in the

year. Born in Darby, PA, she graduated from Sharon Hill High School and earned an associate's degree in natural science from Delaware County Community College where she majored in chemistry. She attended West Chester University where she was active in the biology and chemistry clubs. While at the university she undertook a work-study program at Bullen Chemical Company. In 1979 she obtained her BS in chemistry/biology at West Chester.

In her senior year in college she was introduced to her eventual field of environmental chemistry by interning at the local health department, testing well water. She then worked briefly for the DELCORA sewage authority as a laboratory technician, and later was hired as a plant chemist by Chem-Clear, Inc., a hazardous waste pretreatment facility. After four years she moved to AGES Laboratories where she worked as an environmental chemist for two years.

Deb then decided to pursue a graduate degree in environmental chemistry at Drexel University while working there as a lab technician. This was followed by a stint as a research technician, conducting atmospheric research in Hawaii and Colorado with Drs. Alan Bandy and Donald Thornton. She then transferred to the Health and Safety Department of Drexel and obtained certification as a Chemical Hazardous Materials Manager in 1989.

Deb joined Halliburton NUS (later Brown and Root Environmental Company and eventually TetraTech NUS) as a chemist. The firm was a contractor under the EPA's Superfund Program. She widened her experience and travels as a chemist in a mobile laboratory, working first in EPA Region

III, and later conducting field chemistry in other parts of the country. This was the most satisfying part of her career as it was filled with adventure. She also served on the Pennsylvania Department of Environmental Protection's Environmental Justice Advisory Board.

Following later positions with the Philadelphia Office of the US Army Corps of Engineers and at Environmental Standards, Inc., she was forced to leave full-time employment for health reasons. Deb then worked as a consultant to some of her former employers, most recently as senior environmental scientist with GeoTrans, Inc. She served part-time as sacristan at Malvern Retreat House. She was also active in the Philadelphia support group of the Carcinoid Cancer Foundation.

American Chemical Society

Deb Kilmartin was one of the Philadelphia Section's most loyal and hardworking members. She edited the Section's journal, *the Catalyst*, from 1985 to 1994, after serving as production manager the previous year. She was a long-term active member of the Publications Committee and was chairman at the time of death. She has served in various offices for the Philadelphia Section including director (1988-1991, 2000, 2004); councilor (1996-1999 and 2001-2008); secretary (2001-2003); and Section Chair in 2006.

She worked on many Section committees including the 2004 National meeting hospitality committee, diversity committee, National Chemistry Week, chemist in the classroom, women chemists committee, social committee, tellers committee, policy and bylaws committee, chemical health and safety committee, and was environmental topical group chair from 1997-2001. She worked arduously on the Expand Your Horizons program from its inception in 1999 right up until the present.

For national ACS, in addition to her service as councilor and alternate councilor, Deb served on the committee on environmental

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improvement, the admissions committee, the Middle Atlantic Regional Meeting (MARM), and Homeland Defense and Role of Chemists. Among her many honors, she was the first to receive the ACS Salutes to Excellence Award in 2003. She received the Section's Ullyot service award in 1994, the Philadelphia Section service award in 1988, and was recognized by the Institute for Hazardous Materials Management and the Academy for Hazardous Materials Management.

Deb's dedication to spreading her love of chemistry was seen in her continuing activity in area school classroom presentations as well as at St. Christopher's Hospital, and in the January graduate and undergraduate poster programs of the Philadelphia Section. In 2007 she served on a panel of three judges to select winners of the Chemagination contest in conjunction with the 2007 MARM at Ursinus College.

Deb Kilmartin was proud of her classroom demonstrations which usually featured "green slime." Her enthusiasm and dedication in her working life as well as in her volunteer positions were extraordinary. Anyone who ever worked with her or served on a committee with her could not help but be affected by her unbridled energy and great sense of humor. She will be sorely missed.

Deb Kilmartin is survived by her brothers Kevin and Sean, and her sisters Kathleen Crawford, Collen Scattolini and Maureen Kelly Carreño. Donations in Deb's memory can be made to The Carcinoid Cancer Foundation, Inc., 333 Mamaroneck Ave. #492, White Plains, NY 10605, and Amigos de Jesus, 118 Woodland Ave., Malvern, PA 19355

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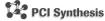
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