

# Silicon Valley Chemist

Santa Clara Valley Section

American Chemical Society

Volume 28 No. 11

## NOVEMBER 2006 NEWSLETTER TOPICS

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## Reminder November Dinner Meeting



On November 16, 2006, join James Babcock for a discussion regarding the remediation of Harmon Field in Tulare County. The California Department of Toxic Substances Control ordered the County to investigate and remediate the pesticide contamination caused by the use of the airfield by crop dusters. The challenges faced by County staff and the extent of the pesticide contamination will be discussed in the presentation along with a history of the investigation. Details regarding dinner reservations and location are listed to the right.

## Chair's Message

For those of you who attended the national American Chemical Society meeting in San Francisco in September: Did you learn something new? Did you meet new, interesting people and share ideas and information? Was it worthwhile? If you contributed by presenting a paper or poster, did your audience appreciate your efforts and say, "Thank you"? I can answer, "yes" to all those questions. I imagine most of you can also. To one activity in which I, several other members of our local section, many members of the ACS Board of Directors, and Ann Nalley (President of the ACS) participated, I can answer, "emphatically yes" to all those questions! That activity, called Chemists in the Community, was conceived, organized, and implemented for the first time at any national ACS meeting by members of our local section and our neighboring California Section. It involved helping the community the Saturday before the opening of the national meeting by making lunches for distribution at a food bank, planting flowers in a run down neighborhood, construction at the San

Francisco Zoo, and preparing indigenous plants for reforesting part of the Golden Gate National Recreation Area. What a concept – giving something back to the community hosting our national meeting! The San Franciscans with whom we worked were excited, grateful, and amazed that conventioners would take time to help their host city. The ACS members with whom I worked and talked

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## November Dinner Meeting

**Date:** Thursday, November 16, 2006

**Time:** 6:00 Social Hour  
7:00 Dinner  
8:00 Lecture

**Location:** Biltmore Hotel & Suites  
2151 Laurelwood Blvd.  
Santa Clara, CA 95054

**Speaker:** Dr. James Babcock  
Environmental Engineer  
Malcom Pirnie, Oakland

**Cost:** \$27.00 with the choice of  
Grilled Fillet of Salmon or  
Eggplant Parmesan  
Includes wine with dinner.

**Reservations:** [www.scvacs.org](http://www.scvacs.org)  
Shirley Radding  
408-246-2564

Reservations should be made by November 13th, stating your name, address, company affiliation, number of people in party, and menu selection. If you are unable to honor your reservation and do not cancel by Wednesday the 15th, you will be invoiced following the dinner meeting.



# Food Bank Service Project

## ACS San Francisco Meeting on September 9, 2006

Howard Peters

The idea sounded great in the bar in DC in January - organize public outreach service projects as part of a national ACS meeting in San Francisco in September.

After much discussion, inquiry, phone calls, and meetings and getting people out of their comfort zone, four project venues were selected. Our project was in the afternoon at the San Francisco Food Bank at 900 Pennsylvania Avenue - a large open, square concrete and brick building surrounded by a high iron picket fence in an industrial area just off the freeway.



Our more than 20 ACS volunteers from all over the country (and one from China) appeared at Moscone Center about noon, signed the ever-present waivers and disclaimers, and picked up their box lunches and T-shirt with the new ACS vision statement. Our bus left on time and within minutes we were at the site, greeted by our Hands-On Bay Area service representative, and led to a meeting room for the Food Bank volunteers. We all signed in (and again signed away our rights -Lawyers!!!) and got more acquainted with each other as our workspace was being prepared. The Food Bank leader gave us some general and specific instructions - mainly to stay out of the way of the motorized forklifts that zoomed around every corner. We were led past huge bins of bread, pallets of food in cans and in jars, and chest high containers of raw cabbage to our work area for the next 3 hours. There we were shown a manual roller assembly line where various food

items were fed into the main line. We were shown standard paper boxes to be assembled, and the food items that needed to be placed in the boxes in certain order so that all the contents of all sealed boxes would be identical.

Our group all pitched in (really self assembled) and shortly found a comfortable rhythm loading the donated food staples: flour, sugar, salt, pasta, peanut butter, beans, tuna, powdered milk, etc. The filled boxes were weighed and sealed on opposite sides by an ingenious dual taping machine. Next, the filled boxes were assembled on a large pallet and when high enough, the many boxes were sealed with plastic and moved. We became more efficient as some wisecracker called out, "Remember the 'I Love Lucy' episode in the candy factory, 'Speed up the line.'" In about an hour, our Food Bank leader wiped his brow and announced that we would soon take a 15 minute break while new supplies for our lines were brought in. His announcement was almost lost in the din of the boxes on the mechanical rollers. He looked over our group and shook his head in disbelief.



After a 15-minute break, we were back picking up the faster tempo - and it was apparent that some of our ACS members were having entirely too much fun. We had many light comments among the line volunteers with some trading places to learn a new skill. Our replacement members from our ACS Board of Directors arrived late - with the excuse that the important B&F meeting ran over. In less than an

hour the Food Bank leader announced that we would soon be finished because we had run out of the needed foodstuffs.



The Food Bank leader was amazed at our speed and ease of working together. In a little over 2 hours (usually 3.5 hours with more volunteers), our ACS volunteers had assembled over 700 boxes of food to be distributed on Monday to local churches, charities, soup kitchens, homeless shelters, etc. On our way out, we were amazed to see the chest high solid blocks of plastic wrapped boxes on pallets. Our bus arrived promptly and whisked us back to Moscone Center.

We need to incorporate this type of fun activity in future ACS meetings. Many thanks to our ACS volunteers that made it possible and I hope that I don't leave anyone out:

La Trice Garrison, Eric Bigham, Jack Breazeale, Fern Caka, Dennis Chamot, Debbie Chen, Andy Claytor, Charity Flener, Katie Hunt, Ls McGuire, Ed Miller, Barbara Moriarty, Jim Burke, Ann Nalley, Dennis Owen, Howard Peters, Raul Ramirez, Diane Schmidt, Xingyi Yang and Natasha Yeung.



*Chair's Message, continued from front page*

were pleased, gratified, tired, and excited about making Chemists in the Community a part of every national meeting. Look for opportunities to sign up when you register for the Chicago meeting next spring.

Did you find this edition of the newsletter on the web? I feel confident that most of you did because only a very small number of section members requested we send them a hard copy in the mail. Almost every issue of the Silicon Valley Chemist since the beginning of the year

announced that we would be moving from both mailed copy and web copy to only web copy in the fall. The reasons were simple: save trees, faster delivery, ability to more easily use color, and significant printing and postage savings. These savings can be better used for teacher training, prizes for students at science fairs, chemistry demonstrations for children during National Chemistry Week, meal subsidies for Student Affiliates who come to our monthly meeting, and more.

Let me know what you think of our new, more colorful format. We are always looking for ways to improve and people to help us make it happen.

*Dave Parker*

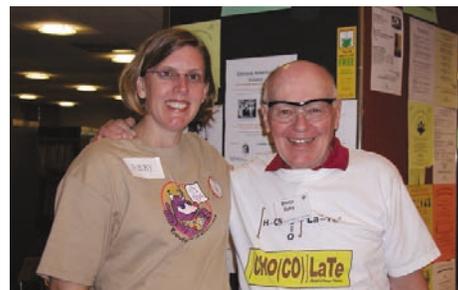


## NCW Public Outreach at MLK Library a Hit!

On Saturday, October 14, Santa Clara Valley ACS members and local volunteers turned out to “turn kids on” to chemistry! A dozen volunteer students from DeAnza Community College, Santa Clara University and San Jose State coordinated four fun hands-on experiments for kids and their families. Over 100 curious kids now know how to test the tensile strength of their spaghetti, how to tell the difference between polystyrene and starch packing peanuts, how to decipher the difference between Oreos and organic dirt and most importantly—how to get slimed! Kids spun the crowd-favorite Chemistry Wheel of

Fortune, where everyone won a prize! The highlight of this year’s prizes was free copies of the book “You Can Be a Chemist”. Families were also able to pick up other ACS publications: “Chemistry Matters” and “Celebrating Chemistry”. Special thanks to student

advisors Linda Brunauer and Cinzia Muzzi for rallying the volunteer troops. To join in the NCW fun next year as a volunteer, or to serve on the NCW Committee, please contact coordinator Abigail Kennedy at [akennedy@exelixis.com](mailto:akennedy@exelixis.com).



# This Month in Chemical History

Harold Goldwhite, California State University, Los Angeles

## Part I

The name Edwin E. Slosson is probably not one that many of my readers will recognize. But in his time Slosson was the leading popularizer of science in the United States, and in many books and hundreds of articles helped give science a positive image in the public mind. When I came across a copy of Slosson's "Creative Chemistry" in a local thrift shop I felt I had to learn more about its author. The biographical material that follows is drawn from the Master's Thesis of David J. Rhees which I found on the web-site of The National Museum of American History (The Smithsonian).

Slosson was born in Kansas in 1865, and after a European tour upon graduation from high school he enrolled at the University of Kansas where he earned a B.S. degree in 1890, and an M.S. in 1892. His studies were eclectic and included chemistry, physics, geology, and psychology. He was elected to both Phi Beta Kappa and Sigma Xi. He then took a post as Assistant Professor of Chemistry at the University of Wyoming. The pay was sufficient to allow him to marry May Preston, the first woman to earn a Ph. D. at Cornell University.

Slosson ran a one-person chemistry department at Wyoming for the next 13 years and spent his summers at the University of Chicago, working under the direction of Julius Stieglitz, a pioneer of physical organic chemistry. Slosson received his Ph.D. in 1902. During this period, doubtless in his copious free time, he began contributing articles to various journals, particularly the periodical "The Independent" edited by Hamilton Holt. Slosson was offered the position of Literary Editor of this journal, gave up chemistry, and turned to full-time writing. Over the next seventeen years he helped expand the subscription base of "The Independent" from a few thousand subscribers to over one hundred thousand. During this period Slosson himself wrote between 3000 and 6000 words a week for the

periodical.

One of his most popular series of articles was on "Great American Universities" and this was collected and published as a book in 1919. It is said that Woodrow Wilson especially admired the chapter on Princeton which was very critical of that institution. A further series on aspects of chemistry was collected and published in 1919 as "Creative Chemistry." The copy I have was published by Garden City Publishing Co., Inc., New York and is dedicated to Slosson's first teacher [of chemistry?] Professor E. H. S. Bailey of the University of Kansas, and to his last teacher, Stieglitz. "Creative Chemistry" became a best-seller and during the following decade sold over 200,000 copies.

Slosson became Editor at Science Service in 1920. In that same year, after the results from Eddington's solar eclipse expedition testing Einstein's theory of relativity became known, he wrote one of the first popular treatments of the theory: "Easy Lessons in Einstein". Slosson's total output was prodigious. It included 18 books; and over 2000 signed articles of which over 400 were on science. He was the best known popularizer of science in the United States.

In 1929 Rollins College in Florida was about to appoint Slosson "Professor of Things in General" when, unexpectedly, he died.

## Part II

In my last column I discussed the career of Edwin E. Slosson, author of "Creative Chemistry" published in 1919, and one of the most successful popular treatments of chemistry ever written. The book's subtitle is significant: "Descriptive of Recent Achievements in the Chemical Industries." The illustration facing the title page is interesting. It shows the "burning of air" in a Birkeland-Eyde furnace at the Du Pont Plant. This now forgotten process for nitrogen fixation, long superseded by the Haber process, involved the passage of air through an electric arc when

some of the nitrogen combines with oxygen to make nitric oxide. This can be readily oxidized to nitrogen dioxide which will then yield nitric acid. Slosson reports that these electric furnaces yield 50 to 80 grams of nitric acid per kilowatt hour.

The Chapter titles indicate clearly Slosson's interests in the chemical industries. "Nitrogen" enjoys a chapter of its own closely followed by "Feeding the Soil". "Coal-tar Colors" is followed by "Synthetic Perfumes and Flavors". The chapter on "Synthetic Plastics" gives us an insight into a field that was to blossom later. In 1919 the most widely used synthetic plastic was collodion, developed by John Wesley Hyatt as a material for billiard balls that could replace the expensive and increasingly rare ivory. As Slosson vividly puts it: "The raising of elephants is not an industry that promises as quick returns as raising chickens or Belgian hares." Collodion is made from a solution of nitrocellulose in ether and alcohol mixed with camphor. It was made by dozens of manufacturers, including Hyatt, under names like celluloid, xylonite, parkesine and many others, and fabricated into billiard balls, combs, boxes, napkin rings, buttons, and detachable shirt collars.

The other group of synthetic plastics are the condensation products, of which the most important is bakelite. I have told the story of Leo Baekeland and the development of bakelite in an earlier column and by 1919 it was being manufactured on a large scale and used to impregnate paper and cloth, to coat metal objects, to make pipestems and fountain pens, and to make "noiseless" gears for cars and planes. Its major use was in the electrical industries as an insulator in motors, generators, and every kind of electrical equipment. Many other condensation products were being investigated and produced on a small scale in 1919 including "condensite" produced from a chlorinated naphthol and formaldehyde by Jonas Walter

Aylesworth, one of Edison's associates, and used in making Edison phonograph records.

The impact of World War I, just concluded when "Creative Chemistry" was published, is evident in many chapters in particular "Nitrogen" and "The Race for Rubber" It is with the latter that I will conclude. It was established in the mid-nineteenth century that natural rubber could be thermally cracked to isoprene. The accidental polymerization of isoprene to rubber was observed by Tilden at Manchester in 1892 but he could never systematically reproduce the experiment. Finally W.H. Perkin's group, also at Manchester (and he incidentally was the son of the Perkin who discovered Mauveine, the first synthetic dyestuff) found in July 1910 that metallic sodium could reproducibly initiate the polymerization of isoprene. The same discovery was made just a little later by Harries at the Bayer works in Germany, but the patent had already been filed in England. Both Britain and Germany wished to make synthetic rubber on a

large scale to equip their armed forces for the coming war of 1914 – 1918. Both sides failed. The costs of the various routes to isoprene were prohibitive. The British spent over \$200,000 in two years on the Perkin polymerization but their incentive to manufacture synthetic rubber was less than that of the Germans. During the war the British blockade of the sea approaches to Germany made rubber

a scarce and costly commodity and rubber was recycled in Germany during the war.

"Creative Chemistry" is breezily written and very readable. It reminds us that if we want to improve the public image of chemistry we need to find writers of the caliber of Edwin Slosson who can make the discoveries and innovations of our science come alive for the public.



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## CHEMPLOYMENT ABSTRACTS NOVEMBER 2006

### CHEMPLOYMENT ABSTRACT 3864

*Position Title:* Production Chemist/Engineer

*Job Description:* Establish and operate new chemical production facility. Utilize atmospheric and low pressure methods for semiconductor grade purification processes. Will require hands on development and implementation of processes.

**QUALIFICATIONS DESIRED:**

*Education:* B.S. ChE + 4 years or B.S. Chemistry + 4 years experience or equivalent

*Experience:* Chemical plant operation as a process/ production engineer. Experience with organic and organometallic chemicals preferred. Experience in semiconductor high purity liquids preferred. Sound knowledge of fluid dynamics, heat flux and exchanger requirements for 20-100 liter batch distillation systems a plus.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Fremont, CA

*Salary:* Depends on experience

*Employer Description:* Air Liquide is the world leader in industrial and medical gases and related services. Our innovative solutions improve our customers' industrial performance. EEOC Compliant.

*Application Instructions:* Submit resume to

JobApplicantSubmission@airliquide.com. Please reference job #7504.

### CHEMPLOYMENT ABSTRACT 3865

*Position Title:* Research Scientist – Electrochemist

*Job Description:* The position involves electrochemical and spectro-electrochemical measurements of electroactive compounds as well as design and development of processes used in manufacturing of electrochemical cells and energy storage devices.

**QUALIFICATIONS DESIRED:**

*Education:* MS or PhD in Electrochemistry, Chem Eng, or Materials Science

*Experience:* 3-5 years of experience in electrochemical measurements such as electrocatalysis and surface characterization. Extensive experience in redox chemistry, electron transfer processes, and structure-reactivity correlations. Knowledge in analytical instrumentation including absorption spectroscopy. Solid skills in experimental design and data analysis.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* East Bay, CA

*Salary:* 70-100K plus attractive stock options

*Employer Description:* Deeya Energy is a Silicon Valley technology venture company developing novel energy storage devices for Load-shifting, UPS (Uninterruptible Power Supply) and Renewable Energy industries.

**Application Instructions:**

E-mail or fax your resume with job Code [RS: Electrochemist] to: info@deeyaenergy.com Fax: 510-991-9848

**CHEMPLOYMENT ABSTRACT 3866**

*Position Title:* Research Scientist - Inorganic Chemist

*Job Description:* The position involves preparation, isolation and characterization of transition-metal/coordination compounds as well as design and development of processes used in the manufacturing of electrochemical cells and energy storage devices.

**QUALIFICATIONS DESIRED:**

*Education:* MS or PhD in Inorganic/Analytical Chemistry

*Experience:* 3-5 years of hands-on experience in inorganic/analytical chemistry including electroanalytical techniques, absorption spectroscopy, infrared spectroscopy, modern chromatographic techniques. Expertise in design, preparation, isolation and characterization of transition metal complexes and coordination compounds. Solid skills in experimental design and data analysis.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* East Bay, CA

*Salary:* 70-100K plus attractive stock options

*Employer Description:* Deeya Energy is a Silicon Valley technology venture company developing novel energy storage devices for Load-shifting, UPS (Uninterruptible Power Supply) and Renewable Energy industries.

**Application Instructions:**

E-mail or fax your resume with job code [RS: Inorganic Chemist] to: info@deeyaenergy.com Fax : 510-991-9848

**CHEMPLOYMENT ABSTRACT 3867**

*Position Title:* Research Assistant/Associate - Organic Chemistry

*Job Description:* Responsibilities include organic chemical synthesis and purification; carrying out enzyme evaluation and process optimization of biocatalytic transformations; record and analyze data; participate in multidisciplinary project teams.

**QUALIFICATIONS DESIRED:**

*Education:* BS/MS Organic Chemistry w/ 2+ yrs of hands-on lab exp. in organic synthesis

*Experience:* A working understanding of Biocatalysis or chemical process development in a pharmaceutical setting is desirable but not required; critical thinking and attention to detail, ability to multitask, excellent communication skills; good planning, organizational and time management skills.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Redwood City, CA

*Salary:* DOE

*Employer Description:* Codexis is the world leader in the development of innovative bio-based solutions for pharmaceutical chemical process development and manufacturing. For more information, visit us at www.codexis.com.

*Application Instructions:* Email to jobs@codexis.com

**CHEMPLOYMENT ABSTRACT 3868**

*Position Title:* Research Assistant/Associate - Analytical Biochemistry

*Job Description:* Assist with transforming process chemistry criteria into robust, relevant multi-tiered medium throughput assay protocols; Acquire and maintain familiarity with lab automation equipment; Carry out and constantly validate and adjust developed assay protocols in multidisciplinary team environment; Assist with population analysis and data handling in LIMS

**QUALIFICATION DESIRED:**

*Education:* BS Biochemistry & min. 6 mos hands-on lab experience with method dev. & enzyme assays (desirable)

*Experience:* Critical thinking and attention to detail; Ability to multitask and produce quality results under tight timelines; Good data handling and documentation skills; Excellent communication, time management and organizational skills; persistence and creativity; working understanding of Molecular Biology helpful.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Redwood City, CA

*Salary:* DOE

*Employer Description:* Codexis is the world leader in the development of innovative bio-based solutions for pharmaceutical chemical process development and manufacturing. For more information, visit us at www.codexis.com.

*Application Instructions:* Email Resume to jobs@codexis.com

**CHEMPLOYMENT ABSTRACT 3869**

*Position Title:* Staff Scientist - Analytical Biochemistry

*Job Description:* Seeking Scientist with extensive background in analytical biochemistry. Be part of interdisciplinary teams and provide technical leadership to develop and implement robust assays in medium-to-high throughput formats to identify improved biocatalysts.

**QUALIFICATIONS DESIRED:**

*Education:* Ph.D in Analytical Chemistry or Biochemistry

*Experience:* Expert in enzyme based assays and chromatographic techniques; working knowledge of molecular/micro biology techniques and various analytical & spectroscopic techniques (HPLC, DC, MS, NMR, CE); experience in pharma/biotech industry a plus; Excellent communication, writing, organizational and time management abilities.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Redwood City, CA

*Salary:* DOE

*Employer Description:* Codexis is the world leader in the development of innovative bio-based solutions for pharmaceutical chemical process development and manufacturing. For more information, visit us at www.codexis.com.

*Application Instructions:* Email Resumes to jobs@codexis.com

**CHEMPLOYMENT ABSTRACT 3870**

*Position Title:* Scientist - Organic Chemistry

*Job Description:* Codexis is seeking an organic chemist to develop scaleable chemical processes based on our biocatalysts. Experience in synthetic organic chemistry and specifically in pharmaceutical process chemistry and scale up is required. Experience in the use of enzymes in the chemical synthesis would be an asset.

**QUALIFICATIONS DESIRED:**

*Education:* MS or PhD in Organic Chemistry

*Experience:* PhD with 2+ years experience or a MS with 5+ years of industrial experience in pharmaceutical or fine chemical process development is required; critical thinking and attention to detail; ability to multitask and produce quality results under tight timelines; Good communications skills; ability to work independently and creatively.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Redwood City, CA

*Salary:* DOE

*Employer Description:* Codexis is the world leader in the development of innovative bio-based solutions for pharmaceutical chemical process development and manufacturing. For more information, visit us at www.codexis.com.

*Application Instructions:* Email resumes to jobs@codexis.com

**CHEMPLOYMENT ABSTRACT 3871**

*Position Title:* Research Associate/Scientist - Analytical Chemistry

*Job Description:* RA's/Staff Scientist to work with the analytical team developing and applying methods for the high throughput analysis of a variety of molecules by GC, HPLC, CE and Mass Spec in a state-of-the-art facility. Strong background in instrumentation, data analysis (with LIMS), familiarity with analytical instrumentation. Management exp. desired for Scientist candidates.

**QUALIFICATIONS DESIRED:**

*Education:* MS/PhD in Analytical Chemistry

*Experience:* RA candidates - BA/MS w/3+ yrs industrial exp./Scientist candidates - MS w/10 yrs industrial exp or PhD w/5 yrs industrial exp. All require exp in quantitation using GC, HPLC or Mass Spec; exp with instrument & data automation, high throughput screening and working understanding of molecular biology helpful; mechanical aptitude; ability to troubleshoot and maintain analytical equipment; attention to detail; good communication skills.

**LOCATION, SALARY, MAIL ADDRESS:**

*Job Location:* Redwood City, CA

*Salary:* DOE

*Employer Description:* Codex is the world leader in the development of innovative bio-based solutions for pharmaceutical chemical process development and manufacturing. For more information, visit us at www.codexis.com.

*Application Instructions:* Email resumes to jobs@codexis.com

# CHEMPLOYMENT ABSTRACTS NOVEMBER 2006

## CHEMPLOYMENT ABSTRACT 3872

**Position Title:** Software Test Engineer

**Job Description:** Successful candidate will perform software tests on state-of-the-art mass spec instrumentation. They will participate in product development of data systems software to control Thermo mass spec instruments; Lead testing; Design, execute, and maintain manual and automated test procedures; Develop test cases, organize and maintain defect-tracking & test case databases. Calibrate, troubleshoot and maintain instruments.

### QUALIFICATIONS DESIRED:

**Education:** BS/MS in Computer Science or equivalent.

**Experience:** 4+ years of testing software for commercial applications, preferably for instrument control software products. Leader w/excellent communication skills. Background in biochem, biology or chemistry is highly desired. White box testing experience with C++ .net applications is a big plus.

### LOCATION, SALARY, MAIL ADDRESS:

**Job Location:** San Jose, Ca. **Salary:** DOE

**Employer Description:** Thermo Electron Corporation is the world leader in analytical instruments, enabling customers to make the world a healthier, cleaner and safer place. Thermo provides analytical instruments, scientific equipment, services and software solutions for life science, drug discovery, clinical, environmental and industrial laboratories.

**Application Instructions:** Please apply on-line: [www.thermo.com](http://www.thermo.com)

## CHEMPLOYMENT ABSTRACT 3873

**Position Title:** Software Test Validation Engineer

**Job Description:** Successful candidate will perform software validation of leading mass spec software; Develop & execute software and hardware validation plans for MS/LS products; Validate automation and data analysis support; Perform system integration and validation tests; Participate in requirements, design, and code reviews, testing, defect reporting and resolution. Create & execute validation test plans.

### QUALIFICATIONS DESIRED:

**Education:** BS/MS in Computer Science/Chemistry/ Bioinformatics or equivalent.

**Experience:** Minimum of 2+ years of experience on system test and validation. Expert on LC/MS hardware; Calibrating, troubleshooting and maintenance of instruments. Proficient in scripting automated test tools. Familiar with Quality System Regulation and FDA Expectations for software and hardware validation is a plus.

### LOCATION, SALARY, MAIL ADDRESS:

**Job Location:** San Jose, Ca. **Salary:** DOE

**Employer Description:** Thermo Electron Corporation is the world leader in analytical instruments, enabling customers to make the world a healthier, cleaner and safer place. Thermo provides analytical instruments, scientific equipment, services and software solutions for life science, drug discovery, clinical, environmental and industrial laboratories.

**Application Instructions:** Please apply on-line: [www.thermo.com](http://www.thermo.com)

## CHEMPLOYMENT ABSTRACT 3874

**Position Title:** Research Associate I/II/III - Chemical Development

**Job Description:** As part of a Process Chemistry team, you will participate in the development & scale-up (large glassware & Pilot Plant) of chemical processes to produce Active Pharmaceutical Ingredients that are used in drug development. Effective communication of results in both oral & written form is essential, as is the maintenance of a safe laboratory working environment & compliance with environmental health & safety, & GMP requirements.

### QUALIFICATIONS DESIRED:

**Education:** You must have a BS/MS or equivalent in Organic Chemistry with 0-4 years relevant experience. Specialized coursework in organic synthesis, structural characterization & spectroscopy is required.

**Experience:** Relevant research experience in an undergraduate or graduate setting is essential. Knowledge of literature database searching is preferred.

### LOCATION, SALARY, MAIL ADDRESS:

**Employer Description:** To learn more about Roche's campus in Palo Alto, please visit <http://paloalto.roche.com/>

**Applications Instructions:** To apply for this position, please visit our career website at <http://paloalto.roche.com/careers/Careers.html> and search by keyword Chemistry, Job Requisition 100340.

## CHEMPLOYMENT ABSTRACT 3875

**Position Title:** Production Chemist-Kilo Scale

**Job Description:** Carry out organic synthesis as written in batch records, using cGMP practices & SOP's and conduct research to develop new synthetic processes under the direction of a Senior Scientist. Expected to set up, use and clean glassware up to 100L, dispense and use raw materials, maintain accurate records & safely handle and dispose of hazardous materials.

### QUALIFICATIONS DESIRED:

**Education:** BS in Chemistry

**Experience:** A minimum of 3 years experience in the Pharmaceutical/Biotech industry using cGMP practices, strong laboratory skills, good oral and written communication skills and excellent interpersonal skills and professionalism.

### LOCATION, SALARY, MAIL ADDRESS:

**Job Location:** Santa Rosa, CA

**Salary:** DOE

**Employer Description:** Seres Laboratories, Inc is a small custom organic chemical synthesis laboratory specializing in process R&D & cGMP manufacturing of intermediates & APIs for pre-clinical, clinical trial and small lot manufacturing.

**Application Instructions:** Send resumes by email to [epedersen@sereslabs.com](mailto:epedersen@sereslabs.com) or by fax to 707-523-4707

## CHEMPLOYMENT ABSTRACT 3876

**Position Title:** Research Associate - Process Research

**Job Description:** Perform experiments that support research activities for process scale up and development from gram to multi-kilo processes. Operate scientific, kilo lab, and pilot plant equipment within cGMP guidelines. Analyze data and prepare related reports. Write, prepare, and execute cGMP documentation for equipment

### QUALIFICATIONS DESIRED:

**Education:** BS/MS in organic chemistry + 0 - 3 years applicable experience

**Experience:** Knowledge of synthetic organic chemistry and familiarity with various modern synthetic methods including chromatography and spectral methods (NMR, HPLC, LCMS) Must have strong computer, written and verbal communication skills, and be able to work well in a team environment

### LOCATION, SALARY, MAIL ADDRESS:

**Job Location:** Foster City, CA

**Salary:** DOE

**Employer Description:** Gilead Sciences is a biopharmaceutical company that discovers, develops and commercializes innovative therapeutics in areas of unmet medical need. Our mission is to advance the care of patients suffering from life-threatening diseases worldwide.

**Application Instructions:** Reference Req# RF 6-870 and apply online today at <http://www.gilead.com/wt/sec/careers>

## CHEMPLOYMENT ABSTRACT 3877

**Position Title:** Senior Research Associate, Process Research

**Job Description:** Conduct organic synthesis, route scouting, reaction screening, and scale-up activities toward important development compounds. Participate in project teams and regularly communicate ideas and results. Optimize chemical reactions, isolations, separations, purifications, and crystallizations. Use techniques such as HPLC, TLC and NMR to monitor reactions and assess purity

### QUALIFICATIONS DESIRED:

**Education:** A BS/MS degree

**Experience:** Experience in multi-step organic synthesis and/or synthesis methodology and running/monitoring organic reactions and purifying the reaction products in a practical laboratory; Familiarity with modern spectroscopic methods applied to structure determination, including <sup>1</sup>H and <sup>13</sup>C NMR, infra-red spectroscopy, and mass spectroscopy

### LOCATION, SALARY, MAIL ADDRESS:

**Job Location:** Foster City, CA **Salary:** DOE

**Employer Description:** Gilead Sciences is a biopharmaceutical company that discovers, develops and commercializes innovative therapeutics in areas of unmet medical need. Our mission is to advance the care of patients suffering from life-threatening diseases worldwide.

**Application Instructions:** Reference Req# RF 6-561 and apply online today at <http://www.gilead.com/wt/sec/careers>



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## FUTURE MEETINGS

- Nov 12-16** 06AIChE Annual Meeting  
San Francisco, CA  
[www.aiche-norcal.org](http://www.aiche-norcal.org)
- Nov 16** SCV Dinner Meeting  
Dr. James Babcock  
Santa Clara, CA
- Nov 28** CA Section's Dinner Meeting  
[www.calacs.org/calendar/calendar.html](http://www.calacs.org/calendar/calendar.html)
- No SCV Dinner Meeting for December 2007**
- Jan 18** Mosher Award  
Biltmore Hotel  
Santa Clara, CA
- Feb 25-27** Crystallization Process  
Development  
ACS ProSpectives Conference  
Cambridge, MS  
[www.chemistry.org](http://www.chemistry.org)

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