



ACS
Chemistry for Life®

OCACS Elements

The Orange County Local Section wants to hear from you. If you would like more information about our section or how you or your company can contribute to our Section's efforts, please visit our website or contact us at OCACSCChair@gmail.com.

Visit our Website



September Dinner Meeting & 2018 Annual Meeting

[Dr. Virginia Trimble](#), professor in the Department of Physics and Astronomy at the University of California, Irvine will join us on Thursday, September 20 for our September Dinner and Annual Meeting. The presentation will begin at 7:20 PM following dinner and networking starting at 5:30 PM. Her talk is entitled "The Astronomical Origins of the Chemical Elements of Biological Importance". From her abstract:

What is the world made of? And where did it all come from? are ancient questions. Ancient answers included "earth, air, fire, and water" and various mythical creation events. The modern answers start with the periodic table and work, first, backward to atomic structure, nuclear reactions in stars and the early universe, and then, second, forward with chemical reactions, including the very complex ones we call life. It is clearly not a coincidence that biological materials are made mostly of the commonest elements that can form chemical compounds (H, C, N, O). These are also the nuclei that come first and most abundantly from those nuclear reactions. What else is essential for life has often been learned through accidental deprivations. You can check by looking at the label of a bottle of multiple vitamins and minerals and discovering that they also fall mostly in the upper part of that periodic table, iodine being probably

the heaviest. Where did they come from? Well, hydrogen and helium are left over from the hot, dense early universe (Big Bang). All the rest are made in stars, primarily stars more massive and shorter-lived than our sun. And the stars in dying eject much or all their material, duly enriched not only in CNO but also in smaller amounts of Na, Cl, Mg, Fe, Si, Ca, S, and all the rest, right up to much smaller amounts of silver, gold, uranium, and thorium. We will explore briefly how all the nuclear reactions in all the different sorts of stars manage to add up to the elemental and isotopic abundances astronomers find in the solar system and beyond.

Virginia Trimble is a native Californian and graduate of Hollywood High School, UCLA, and Caltech (PhD in astronomy, 1968, when they admitted women only under "exceptional circumstances", with an honorary MA from Cambridge (UK) and Dtra h.c. from Valencia (Spain). She is a relative newcomer to ACS, having only just earned her 6th anniversary (carbon) mug, but her father was a chemist, specializing in dyes and pigments, especially for color motion pictures and other imaging. Trimble joined the U California Irvine physics department in fall, 1971 and, from 1973 to 2000 shared appointments at UCI and U Maryland with her husband, physicist Joseph Weber. She has worked on supernovae and their remnants, white dwarf stars, nucleosynthesis, binary star systems, ways of evaluating the significance of astronomical facilities and of graduate programs, and on the history of dark matter, star formation, black holes, telescope technology, and lives of some scientists on the physics/chemistry boundary. Trimble has held governance positions in IAU, IUPAP, AAS, APS, ASP, Sigma Xi, Phi Beta Kappa. Her current publication list exceeds 850. You can read more about her in this article from Physics Today.

We will also be honoring our 50, 60, and 70-year members at this meeting, along with presenting our 2019 slate of candidates who will be on our upcoming ballot.

All Reservations: Please contact us as soon as possible, but no later than noon on Tuesday, September 18, 2018 at ocacs@sbcglobal.net Please indicate if you will be attending the dinner and program or the program only. Also, please list all names of attendees. Note if parking lot is full ask the valet staff where to park.

Note: OCACS pays the hotel based on the number of dinner reservations made. Your RSVP for dinner is a commitment to pay for dinner. Dinner cost is \$30 for members and member's significant others; \$35 for non-members or those without reservations. There is no charge for attending the program only. However, voluntary donations will be accepted to help defray meeting costs. The section's address is OCACS, P.O. Box 211, Placentia CA 90871. The first five students who register for a meeting will receive a \$10 discount.

Congratulations and Thank You to our 50, 60, and 70+ Year ACS Members!

70+ Year Members:

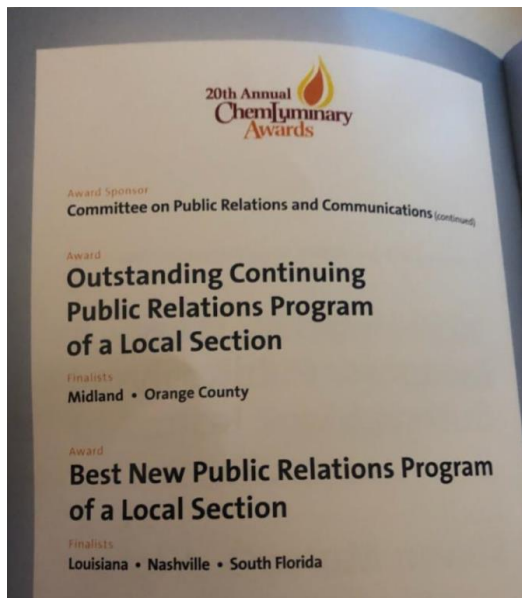
**Dr. Norman R. Byrd
Dr. Howard Steinberg
Mr. Robert L. Morris (73 years)
Dr. A. Spencer Lehmann (76 years)**

60 Year Members:

**Mr. John B. Bush, Jr.
Mr. Joseph C. Danner
Dr. Nathan Gochman
Dr. Gene A. Hiegel**

50 Year Members:

**Dr. Fu Tai A. Chen
Mr. Robert Stephen Cohen
Dr. William John Evans
Dr. Raymond Eugene Foscante
Dr. Carol Jane Grimes
Dr. Sylvia Teich Horowitz
Dr. Chau Der Li
Dr. John Yol Park
Dr. Amulf Vollmar
Dr. Clifford Allen Woolfolk**



Orange County Local Section Wins 2018 ChemLuminary Award

Our Local Section kept our streak of excellence in tact in 2018 by winning the Outstanding Continuing Public Relations Program of a Local Section at the ACS National Meeting in Boston.

Our Education Committee deserves all of the credit for this honor, because they work so hard each year on three major events for the section: High School Awards Dinner, College Awards Dinner, and National Chemistry Week activities at the Santa Ana Zoo. Our successful outreach to the Orange County community on the power of chemistry in their lives is a direct result of our Education Committee and dozens of committed volunteers and students.

If you want to get more involved in our section activities or if you have suggestions for new activities, please contact us at OCACSCChair@gmail.com.



Don't miss our upcoming events and meetings and for more information, please visit our [website](#).

Sept. 13: Executive Committee Meeting
Sept. 20: Dinner Meeting & Annual Meeting
Oct. 14: National Chemistry Week
Oct. 18: Dinner Meeting
Nov. 15: Dinner Meeting



The OCACS Executive Committee thanks the Younger Chemists Committee of the Orange County Section of the ACS who organized an interactive presentation for a kindergarten class at Villa Park Elementary. It was a successful day of outreach and teaching five-year old children about density.

To start off the morning, we asked the children if they knew what density was, and none of the students did; although, there were many valiant efforts. We followed this up by introducing them to the idea of density by way of definition and demonstration.

Our first demonstration allowed the children to observe a ping-pong ball floating on water, which explained the concept of the differences in density between liquid and gas. Next, we showed them how a liquid could become denser by adding solute, by comparing how an egg could either float or sink in water of different densities.

In the last part of our demonstration, we showed the children a jar of layered liquids, including water, dish soap, and honey, to demonstrate the vast variations of density in liquids. To conclude our presentation, the children made their own layered density test tube using salt water and food coloring. They were eager to learn and carry out a hands-on experiment of their own.

Each table made a layered test tube and all of the students were visibly proud of what they accomplished, showing us and saying, "look at mine, look at mine!" To close out the morning, we questioned the students about what they learned in the hour, and they answered our questions flawlessly. We left them with the layered glass jar to remember the Younger Chemists Committee and to remind them that chemistry is cool!

If you want to get involved with the Younger Chemists Committee in Orange County, please contact us at OCACSChair@gmail.com.

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22 Ti Titanium 47.867	2 8 10 2	88 Ra Radium (226)	2 8 18 32 18 8 2	39 Y Yttrium 88.90585	2 8 18 9 2

Get Involved & Support OCACS

If you want to network with over 1300 chemists in Orange County, host a technical tour, speak at one of our dinner meetings or science cafes, explore leadership opportunities, or advertise with our Section, please visit our [website](#) or E-mail us at OCACSLocalSection@gmail.com and OCACSChair@gmail.com.

We would love to hear from you!

OCACS Executive Committee

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