



Orange County Local Section  
of the American Chemical Society

**January Dinner Meeting**  
**Thursday, January 12, 2012**

**The DoubleTree Club Hotel**

7 Hutton Centre Drive, Santa Ana  
Phone: 714-751-2400

Social: 6:00 PM ~ Dinner: 6:30 PM ~ Program/Presentation: 7:00 PM

**Using Palladium Atoms to Stitch Together Organic Molecules**

**Dr. David L. Van Vranken**

Professor of Chemistry, University of California, Irvine

**Abstract:** Palladium-catalyzed cross coupling reactions have revolutionized the field of organic synthesis, facilitating the synthesis of pharmaceutical building blocks and complex bioactive natural products. The development of these powerful synthetic reactions was the subject of the 2010 Nobel Prize in chemistry. To a large extent, the utility of palladium-catalyzed cross coupling reactions derives from their conceptual simplicity as a way to unite two molecules with a central bond. Since their invention, synthetic chemists have long sought to amplify the power of this process by incorporating a third component like a C=C double bond or a C=O group. My group started by exploiting diazo compounds, with C=N=N bonds in iron-catalyzed reactions and rhodium-catalyzed de-aromatizations. We have since succeeded in expanding the use of diazo compounds to carbenylative cross-couplings as a new way to generate chiral centers.

**Biography:** Professor David Van Vranken received his B.S. degree in chemistry from the University of Texas at Austin and his Ph.D. from Stanford University working with Barry Trost. He did postdoctoral work with Peter Schultz at UC Berkeley and then started his independent career at UCI in 2004. His work has been focused in two areas: reactions of indoles and transition metal catalysis. He has used indole cross-linking reactions in natural product synthesis and for fluorogenic peptide reactions. In the area of transition metal catalysis he has developed new methods of engineering molecules using diazo compounds.

**All Reservations:** Please contact us no later than 12 noon on Monday, January 9, 2012 at [OCACS@sbcglobal.net](mailto: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.

Dinner cost is \$25 for Members and Member's Significant Others; \$30 for Non-Members or those without reservations. *Note:* OCACS pays the hotel on the basis of the number of dinner reservations made. Your RSVP for dinner is a commitment to pay for dinner.

Members and guests are invited to attend the program only (after dinner) at no charge, but advance reservation is appreciated. Space may be limited.

**Directions:** Take the Costa Mesa Freeway (55), exit at MacArthur Blvd. and go west (towards South Coast Plaza). Turn left at MacArthur Place. The DoubleTree Club Hotel is straight ahead on the left. Use the parking lot in front of hotel or follow signs to nearby parking. If in error you turn right at Hutton Centre Drive, you may find the DoubleTree Hotel, which is not the same as the DoubleTree *Club* Hotel. Please be aware of the similar hotel names. Our dinner is at the Doubletree Club Hotel.