



# West Valley Astronomy Club

## Monthly Meeting Minutes

**February 4, 2025**

**Meeting:** Beardsley Recreation Center - 12755 W Beardsley Rd, Sun City West, AZ 85375 - #4 Agave Room

**Board Members and Volunteers Present:** Bob Randle (President), Paul Bleikamp (Vice President), Bob Colvert (Treasurer), John Hiatt (Program Director and Library Telescope Coordinator), Larry Matney (Outreach Director), Bud and Betsy Johnson (Secretary), along with volunteers, club members, and visitors **(Total Present: 53)**.

**1 - Opening Remarks:** This meeting was called to order at 7:00 pm by President Bob Randle. He said that our club was being recognized with the Night Sky Network, and John Hiatt will have more availability for speakers' presentations. Tomorrow night there will be a star party at Debbie Bleikamp's school; she said there are 11 telescopes this time!

**2 – Tonight's Speaker:** John Hiatt introduced Dr. Charles J. Law, who has a PhD in Astrophysics from Harvard University, and is now a post-doctoral research scientist and NASA Sagan Fellow at the University of Virginia. The title of his ZOOM presentation is “The Molecular Universe: An Astrochemical View of the Cosmos.” He has been studying planet-forming disks, comets, mapping spiral arms, molecular clouds, dying stars, and supernova explosions, with a focus on the chemistry of star and planet formation. Of all the matter that exists between stars, 99% is gas and 1% is dust. Formerly, chemistry studies predicted that no molecules could form from the gases and dust at such low temperatures and densities; but these were old ideas. In the 1960's, astronomers started finding molecules in interstellar clouds, around planet-forming disks, and other places. With the help of more advanced instruments (like the ALMA radio telescope in Chile), since 2005, there have been 6 molecule detections per year. To date, more than 330 molecules have been detected, from 3 atoms to 60 or 70 atoms making up complex molecules. Dr. Law explained how molecules can form in gas phase, with dust particles in the gas attracting atoms, which hop around and combine with other atoms, while sticking to the dust grains. With ALMA in Chile, 30 molecules have been detected in protoplanetary disks (the birthplace of planets), with complex cyanides (the first steps to make amino acids, to form life). The same ingredients for starting life on our own planet are found around other stars! Three new molecules have already been discovered in 2025, signaling a bright future for Astrochemistry.

**3 – Other Business:** Bob Randle said that there is no update on the new telescopes yet, but hopefully, in the near future the demand will be met. Also, the Goodyear Library wants to have an Outreach program 3 to 4 times a year. There is interest from other groups, too. There are a lot of events coming up; please check them out on the WVAC Internet site.

**5 – 50-50 Prizes:** Debbie Bleikamp had 3 prizes for those who bought tickets.

**6 - Future Meetings:** The next meeting will be on Tuesday, March 4, at 7 pm.

Meeting adjourned at 8:10 pm. Minutes submitted by Bud and Betsy Johnson, via email on **February 4, 2025**.

Minutes approved by: \_\_\_\_\_ Date \_\_\_\_\_  
Bob Randle (WVAC President)