

SHANE WESLEY STONE *Ph.D. Candidate*

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EDUCATION

University of Arizona

Ph.D. Candidate in Planetary Sciences

2017 – Present

Mars through the inlet of MAVEN NGIMS

Advisor: Prof. Roger V. Yelle

Master of Science in Planetary Sciences

2014 – 2017

University of California, Los Angeles

Master of Science in Organic Chemistry

2011 – 2014

Controlled Polymerization of α -Amino Acid N-Thiocarboxyanhydrides

Advisor: Prof. Timothy J. Deming

University of Texas at Dallas

Bachelor of Science in Chemistry, summa cum laude with honors and distinction

2007 – 2011

Poly(3-hexylthiophene)-based Block Copolymers for Hybrid Solar Cells

Advisor: Prof. John P. Ferraris

TEACHING

University of California, Los Angeles

Teaching Associate, CHEM 136: Organic Spectroscopic Methods

Spring 2014

Laboratory; chemical problem solving with emphasis on structure determination using 1D and 2D NMR, IR, mass spectrometry, and x-ray crystallography.

Teaching Assistant, CHEM 14D: Organic Reactions

Fall 2013

Organic reaction mechanisms; nucleophilic and electrophilic substitutions and additions, electrophilic aromatic substitutions, carbonyl reactions, and catalysis.

Teaching Assistant, CHEM 14C: Organic Molecular Structure

5 quarters, 2011 – 2013

Molecular structure with emphasis on biological applications; stereochemistry; resonance, conjugation, and aromaticity; mass spectrometry, IR, NMR; effects of structure on physical and chemical properties; survey of biomolecular structure.

AWARDS & FELLOWSHIPS

- Best Graduate Student Talk, Lunar and Planetary Laboratory Conference, 2017
 - NASA Group Achievement Award: MAVEN Science Team, 2016
 - NASA RHG Exceptional Achievement for Science: MAVEN Science Team, 2016
 - Honorable Mention, National Science Foundation Graduate Research Fellowship, 2013
 - UCLA Graduate Division Unrestricted Fellowship, Spring 2013
 - UCLA Hanson-Dow Teaching Assistant Award, Fall 2012
 - UCLA Christopher S. Foote Graduate Fellowship, 2011 – 2013
 - UTD Undergraduate Research Scholar Award, 2009 – 2010 and 2010 – 2011
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SERVICE

- LPL Graduate Outreach Coordinator, 2017 – Present
 - LPL Graduate Student Colloquium Coordinator, 2016 – Present
 - Student Member, American Geophysical Union, 2015 – Present
 - Junior Member, American Astronomical Society, 2014 – Present
 - President, UCLA Chemistry and Biochemistry Graduate Student Association, 2013 – 2014
 - Founding Member, UCLA Chemistry and Biochemistry Graduate Student Association, 2012 – 2013
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TALKS & POSTERS

14. Lunar and Planetary Laboratory Conference, August 18, 2017
Temperature Structure of the Martian Upper Atmosphere from MAVEN NGIMS
13. International Conference on Mars Aeronomy, May 15, 2017
Temperature Variations of the Martian Upper Atmosphere from MAVEN NGIMS

12. MAVEN Project Science Group Meeting, November 14, 2016
Validation of NGIMS O Densities
 11. Division for Planetary Sciences 48 / European Planetary Science Congress 11, October 19, 2016
Temperature Variations in the Martian Upper Atmosphere from the MAVEN Neutral Gas and Ion Mass Spectrometer
 10. Lunar and Planetary Laboratory Conference, August 19, 2016
Temperatures of the Martian Upper Atmosphere from MAVEN NGIMS
 9. American Geophysical Union 2015 Fall Meeting, December 15, 2015
He Bulge Detection by MAVEN NGIMS in the Upper Atmosphere of Mars (Poster)
 8. American Geophysical Union 2015 Fall Meeting, December 15, 2015
Retrieval and Distribution of Neutral and Ionic Species in the Martian Upper Atmosphere as Measured by MAVEN NGIMS (Poster)
 7. MAVEN Project Science Group Meeting, October 28, 2015
Thermospheric Temperatures Profiles from NGIMS Deep Dip Data
 6. Lunar and Planetary Laboratory Graduate Student Colloquium, September 29, 2015
Recent Results from MAVEN NGIMS
 5. Lunar and Planetary Laboratory Conference, August 20, 2015
Recent Results from MAVEN NGIMS
 4. Lunar and Planetary Laboratory Graduate Student Colloquium, May 5, 2015
Membrane Alternatives in Worlds without Oxygen: Creation of an Azotosome
 3. Lunar and Planetary Laboratory Conference, August 22, 2014
The van der Waals Dimer of Hydrogen Cyanide in Titan's Atmosphere
 2. UCLA Organic Chemistry Graduate Student Seminar, March 4, 2013
The Chemistry of Borole
 1. American Chemical Society 43rd Annual Dallas-Fort Worth Meeting-in-Miniature, April 17, 2010
Progress toward block copolymers for photovoltaic applications
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PUBLICATIONS

6. B. M. Jakosky, M. Slipski, M. Benna, P. R. Mahaffy, M. K. Elrod, R. V. Yelle, **S. W. Stone**, N. Alsaeed. Mars' atmospheric history derived from upper-atmosphere measurements of $^{38}\text{Ar}/^{36}\text{Ar}$. *Science*, **2017**, 355(6332), 1408-1410, doi:10.1126/science.aai7721.
5. M. K. Elrod, S. W. Bougher, J. Bell, P. R. Mahaffy, M. Benna, **S. W. Stone**, R. V. Yelle, B. M. Jakosky. He bulge revealed: He and CO₂ diurnal and seasonal variations in the upper atmosphere of Mars as detected by MAVEN NGIMS. *J. Geophys. Res.*, **2017**, 122(2), doi:10.1002/2016JA023482.
4. P. R. Mahaffy, M. Benna, M. K. Elrod, R. V. Yelle, S. W. Bougher, **S. W. Stone**, B. M. Jakosky. Structure and composition of the neutral upper atmosphere of Mars from the MAVEN NGIMS investigation. *Geophys. Res. Lett.*, **2015**, 42(21), doi:10.1002/2015GL065329.
3. S. W. Bougher and 93 others including **S. W. Stone**. Early MAVEN Deep Dip campaign reveals thermosphere and ionosphere variability. *Science*, **2015**, 350(6261), aad0459, doi:10.1126/science.aad0459.
2. B. M. Jakosky and 93 others including **S. W. Stone**. MAVEN observations of the response of Mars to an interplanetary coronal mass ejection. *Science*, **2015**, 350(6261), doi:10.1126/science.aad0210.
1. D. Lee, **S. W. Stone**, J. P. Ferraris. A novel dialkylthio benzo[1,2-b:4,5-b']dithiophene derivative for high open-circuit voltage in polymer solar cells. *Chem. Commun.*, **2011**, 47(39), doi:10.1039/C1CC14780C.