PUBLICATION - ANGELA K. SPECK

Total publications: 49 peer-reviewed, ~40 conference proceedings, >100 conference presentations, 13 invited conference talks since 2003 (I am now turning them down!), *h*-factor = 18, total citations >1000.

* denotes undergraduate, † denotes graduate student and ‡ denotes postdoctoral researcher advised by Angela Speck.

Manuscripts in preparation:

A. Arrant, D.J.†, **Speck, Angela K.**, Chan, S. J.‡, "The effect of chemical abundance on the dust condensation in O-rich circumstellar environments", submitted to *Monthly Notices of the Royal astronomical Society,* expected submission January 2012

B. Caputo, D.†, **Speck, Angela K.**, Barlow, M. J., Wesson, R., Clayton, G. C., "Formation of PAHs around carbon stars", expected submission January 2012

C. **Speck, Angela K.,** Corman, Adrian B.†, Hester, B.N.*, Volk, Kevin, Sloan, G.C., Barlow, M.J., "The effect of pulsation on dust formation: the case of V Cyg", expected submission February 2012.

D. Corman, Adrian B.†, **Speck, Angela K.**, Pitman, K.M‡, Hofmeister. A.M., Azmeh, C.B.*, "Optical constants of silicon carbide for astrophysical applications: III. The effect of grain size, shape and dust shell parameters on shape and strength of the 11μm feature", expected submission February 2012

E. Guha-Niyogi, S. **Speck, Angela K.**, Volk, K. "Spatially-resolved spectra of O-rich AGB stars", expected submission February 2012

F. Iain McDonald, **Speck, Angela K.**, SAGE-IRS Team "Carbon stars in the Large Magellanic Cloud", in prep, expected submission, March 2012

G. Parmley, N.D.* Mulia, A.J.*, **Speck, Angela K.**, SAGE-IRS Team, "Extreme carbon stars in the Large Magellanic Cloud", expected submission, April 2012.

Manuscripts in review:

A. Henry, R., **Speck, Angela K.**, Karakas, A., Ferland, G., "The Curious Conundrum Regarding Sulfur And Oxygen Abundances In Planetary Nebulae", in post review revision, expected resubmission in early 2012

B. Messenger, S. J.*, **Speck, Angela K.**, Volk, K. "Probing the '30μm' feature: lessons from extreme C stars", in post review revision, expected resubmission in early 2012

C. **Angela Speck**, Karen Wilson*, Josh Tartar†, Margaret Meixner, D. C. Lis, Maia Nenkova, & Moshe Elitzur "An Extremely Extended Dust Shell around AFGL 618: Submillimeter Imaging and Radiative Transfer Modeling", *Astrophysical Journal*, in post-review revision.

Refereed Publications:

1. Guha-Niyogi, S. **Speck, Angela K.**, Volk, K. "Investigating spatial distribution of dust around SW Vir", 2011, *Astronomical Review*, **6**,(8), 27-38.

2. **Speck, Angela K.**, Whittington, A.G., Tartar, J.B.†, Hofmeister. A.M., "Disordered Silicates in Space: a Study of Laboratory Spectra of 'Amorphous' Silicates", 2011, *Astrophysical Journal*, **740**, 93-109.

3. Clayton, G.C., De Marco, O., Whitney, B., Babler, B., Gallagher, J. S., Nordhaus, J.C., **Speck, A.K.**, Wolff, M.J., Freeman, W.R, Camp, K.R., Lawson, W.A., Roman-Duval, J., Misselt, K.A., Meade, M., Sonneborn, G., Matsuura, M., and Meixner, M. "The Dust Properties of Hot R Coronae Borealis Stars and a Wolf-Rayet Central Star of a Planetary Nebula: in Search of the Missing Link" 2011, *Astronomical Journal,* **142**, 54-60.

4. Guha Niyogi, S.†, **Speck, Angela K.**, Onaka, T. "The effect of stellar pulsation cycles on dust formation: a temporal study of mid-infrared spectra of O-rich AGB star, T Cep", 2011, *Astrophysical Journal,* **733**, 93-107.

5. Woods, Paul M., Oliveira, J. M., Kemper, F., van Loon, J. Th., Sargent, B. A., Matsuura, M., Szczerba, R., Volk, K., Zijlstra, A. A., Sloan, G. C., Lagadec, E., McDonald, I., Jones, O., Gorjian, V., Kraemer, K. E., Gielen, C., Meixner, M., Blum, R. D., Sewiło, M., Riebel, D., Shiao, B., Chen, C.-H. R., Boyer, M. L., Indebetouw, R., Antoniou, V., Bernard, J.-P., Cohen, M., Dijkstra, C., Galametz, M., Galliano, F., Gordon, Karl D., Harris, J., Hony, S., Hora, J. L., Kawamura, A., Lawton, B., Leisenring, J. M., Madden, S., Marengo, M., McGuire, C., Mulia, A. J., O'Halloran, B., Olsen, K., Paladini, R., Paradis, D., Reach, W. T., Rubin, D., Sandstrom, K., Soszyński, I., **Speck, A. K.**, Srinivasan, S., Tielens, A. G. G. M., van Aarle, E., van Dyk, S. D., van Winckel, H., Vijh, Uma P., Whitney, B., Wilkins, A. N. "The SAGE-Spec Spitzer Legacy programme: the life-cycle of dust and gas in the Large Magellanic Cloud - Point source classification I", 2011, *Monthly Notices of the Royal Astronomical Society*, **411**, 1597-1627.

6. Srinivasan, S., Sargent, B.A., Matsuura, M., Meixner, M., Gordon, K, Indebetouw, R., Kemper, F., Marengo, M., **Speck, A.K.** , Sloan, G.C., Tielens, A. G. G. M., van Loon, J. Th., Volk, K., Woods, P., "The Mass-Loss Return From Evolved Stars To The Large Magellanic Cloud III: Dust Properties For Carbon-Rich Asymptotic Giant Branch Stars", 2010, *Astronomy & Astrophysics*, **524**, A49 (10pg) .

7. Kemper, F., Woods, Paul M., Antoniou, V., Bernard, J. -P., Blum, R. D., Boyer, M. L., Chan, J., Chen, C. -H. R., Cohen, M., Dijkstra, C., Engelbracht, C., Galametz, M., Galliano, F., Gielen, C., Gordon, Karl D., Gorjian, V., Harris, J., Hony, S., Hora, J. L., Indebetouw, R., Jones, O., Kawamura, A., Lagadec, E., Lawton, B., Leisenring, J. M., Madden, S. C., Marengo, M., Matsuura, M., McDonald, I., McGuire, C., Meixner, M., Mulia, A. J., O'Halloran, B., Oliveira, J. M., Paladini, R., Paradis, D., Reach, W. T., Rubin, D., Sandstrom, K., Sargent, B. A., Sewilo, M., Shiao, B., Sloan, G. C., **Speck, A. K.**, Srinivasan, S., Szczerba, R., Tielens, A. G. G. M., van Aarle, E., Van Dyk, S. D., van Loon, J. Th., Van Winckel, H., Vijh, Uma P., Volk, K., Whitney, B. A., Wilkins, A. N., Zijlstra, A. A., "The SAGE-Spec Spitzer Legacy program: The life-cycle of dust and gas in the Large Magellanic Cloud", 2010, *Publications of the Astronomical Society of the Pacific*, **122**, 683-700.

8. Pitman K.M.‡, Hofmeister A.M., **Speck A.K.**, Dijkstra C.R.‡, "Infrared laboratory absorbance spectra of olivine: Using classical dispersion analysis to extract peak parameters and optical constants temperature forsterite and fayalite absorbances", 2010, *Monthly Notices of the Royal Astronomical Society,* **406**, 460-481.

9. Sargent, B. A., Srinivasan, S., Meixner, M., Kemper, F., Tielens, A. G. G. M., **Speck, Angela K.,**, Matsuura, M., Bernard, J.-Ph., Hony, S., Gordon, K.D., Indebetouw, R., Marengo, M.,

Sloan, G. C., Woods, P.M. SAGE-Spec Team "The Mass-Loss Return from Evolved Stars to the Large Magellanic Cloud II: Dust Properties for Oxygen-Rich Asymptotic Giant Branch Stars", 2010, *Astrophysical Journal*, **716**, 878-890.

10. Ueta, T., Stencel, R. E., Yamamura, I., Geise, K. M., Karska, A., Izumiura, H., Nakada, Y., Matsuura, M., Ita, Y., Tanabe, T., Fukushi, H., Matsunaga, N., Mito, H., **Speck, A. K.**, "The interface between the stellar wind and interstellar medium around R Cassiopeiae revealed by far-infrared imaging", 2010, *Astronomy & Astrophysics*, **514**, 16-21.
11. Oliveira, J. M., van Loon, J. Th., Chen, C.-H. R., Tielens, A. G. G. M., Sloan, G. C., Woods, P. M., Kemper, F., Indebetouw, R., Gordon, K. D., Boyer, M. L., Shiao, B., Madden, S., **Speck, A. K.**, Meixner, M., Marengo, M., "Ice Chemistry in Embedded Young Stellar Objects in the Large Magellanic Cloud" 2009, *Astrophysical Journal*, **707**, 1269-1295.
12. Matsuura, M., **Speck, A.K.** McHunu, B.M.†, Tanaka, I., Wright, N.J., Smith, M.D., Viti, S., Zijlstra, A.A., "A 'firework' of H_2 knots in the Planetary Nebula NGC7293 (the Helix Nebula)", 2009, *Astrophysical Journal*, **700**, 1067-1077.
13. Hofmeister. A.M., Pitman, K.M.‡, Goncharov, A.F., **Speck, A.K.**, "Optical Constants of Silicon Carbide for Astrophysical Applications. II. Extending Optical Functions from IR to UV Using Single-Crystal Absorption Spectra", 2009, *Astrophysical Journal,* **696**, 1502-1516.
14. **Speck, Angela K.**, Corman, Adrian B.†, Wakeman, Kristina*, Wheeler, Caleb H.*, Thompson, Grant,* "Silicon carbide absorption features: dust formation in the outflows of extreme carbon stars", 2009, *Astrophysical Journal,* **691**, 1202-1221.
15. **Speck, Angela K**., Whittington, Alan. G., Tartar, Josh B.†, "The Cosmic Crystallinity Conundrum: clues from IRAS 17495-2534", 2008, *Astrophysical Journal Letters,* **687**, L91-L94.
16. Gruendl, R.A., Chu, Y.-H., Seale, J. P., Matsuura, M., **Speck, A. K.**, Sloan, G. C., Looney, L. W., "Discovery of extreme carbon stars in the Large Magellanic Cloud", 2008, *Astrophysical Journal Letters* **688,** L9-L12.
17. Pitman K.M.‡, Hofmeister A.M., **Speck A.K.**, "Optical properties of silicon carbide for astrophysical applications: I. New laboratory infrared reflectance spectra and optical constants", 2008, *Astronomy & Astrophysics,* **483**, 661-672.
18. Nuankhieo, P., Ruzhitskaya, L.†, Moore, L. J., & **Speck, A.** "Affordances of An Astronomy Laboratory Simulation", 2008, *Academic Exchange Quarterly*, **12(4)**,136-141.
19. Matsuura, M., **Speck, A.K.**, Smith, M.D. , Zijlstra, A.A., Lowe, K.T.E., Viti, S., Redman, M., Wareing, C.J., Lagadec, E., "VLT / Infrared Integral Field Spectrometer Observations of Molecular Hydrogen Lines in the Globules in the Planetary Nebula NGC 7293 (the Helix Nebula)", 2007, *Monthly Notices of the Royal Astronomical Society*, **382**, 1447-1459.
20. Grant D. Thompson*, Adrian B. Corman†, **Angela K. Speck**, & Catharinus Dijkstra‡, "Challenging the Carbon Star Dust Condensation Sequences: Anarchist C-Stars", 2006, *Astrophysical Journal*, **652**, 1654-1673.
21. Dijkstra, C.‡, & **Speck, A.K.**, "Shaping Bipolar Planetary Nebulae: How Mass Loss Leads to Waistline Development ", 2006, *Astrophysical Journal*, **651**, 288-293.
22. **Angela K. Speck**, Jan Cami, Ciska Markwick-Kemper, Jarron Leisenring, Ryszard Szczerba, Catharinus Dijkstra‡, Schuyler Van Dyk, & Margaret Meixner, "The Unusual Spitzer Spectrum

of the Carbon Star IRAS 04496-6958: A Different Condensation Sequence in the LMC?", 2006, *Astrophysical Journal*, **650**, 892-900.

23. C. Wareing, A. Zijlstra, T. Ueta, **A. K. Speck**, R. E. Stencel, M. Elitzur, R. Gertz, F. Herwig, H. Izumiura, W. Latter, M. Matsuura, M. Meixner, M. Steffen, & R. Szczerba "Detached shells as tracers of AGB-ISM bow shocks" 2006, *Monthly Notices of the Royal Astronomical Society*, **372**, L63-L67.

24. K. M. Pitman‡, **A. K. Speck** & A. M. Hofmeister, "Challenging the Identification of Nitride Dust in Extreme Carbon Star Spectra", 2006, *Monthly Notices of the Royal Astronomical Society*, **371**, 1744-1754.

25. T. Ueta, **A. K. Speck**, R. E. Stencel, M. Elitzur, R. Gertz, F. Herwig, H. Izumiura, W. Latter, M. Matsuura, M. Meixner, M. Steffen, R. Szczerba, & A. Zijlstra, "Detection of a Bow-Shock-Like Far-IR Nebula Associated with R Hya: the First MIRIAD Results", 2006, *Astrophysical Journal Letters*, **648**, L39-L42.

26. Ben E. K. Sugerman, Barbara Ercolano, M. J. Barlow, A. G. G. M. Tielens, Geoffrey C. Clayton, Albert A. Zijlstra, Margaret Meixner, **Angela Speck**, Tim M. Gledhill, Nino Panagia, Martin Cohen, Karl D. Gordon, Martin Meyer, Joanna Fabbri, Janet. E. Bowey, Douglas L. Welch, Michael W. Regan & Robert C. Kennicutt, Jr. "Massive-Star Supernovae as Major Dust Factories", 2006, *Science*, **313**, 196-200.

27. DePew, Kyle†, **Speck, Angela**, Dijkstra, Catharinus‡, "Astromineralogy of the 13 μm feature in the spectra of oxygen-rich asymptotic giant branch stars. I. Corundum and spinel", 2006, *Astrophysical Journal*, **640**, 971-981.

28. **Speck, Angela K.**, Thompson, Grant D.*, Hofmeister, Anne M., "The Effect of Stellar Evolution on SiC Dust Grain Sizes", 2005, *Astrophysical Journal*, **634**, 426-435.

29. Dijkstra, C.‡, **Speck, A.K.**, Reid, R. B.*, Abraham, P., "The 10 mum Feature of M-Type Stars in the Large Magellanic Cloud and the Dust Condensation Sequence" 2005, *Astrophysical Journal Letters*,.**633**, 133-136.

30. Meixner, M., McCullough, P.R., Hartman, J., Son. M., **Speck, A.K.,** "Molecular Hydrogen Knots in the Helix Nebula" 2005, *Astronomical Journal*, **130**, 1784-1794.

31. **Speck, A.K.,** Hofmeister, A.M., "Processing of presolar grains around post-AGB stars: silicon carbide as the carrier of the ``21"μm feature.", 2004, *Astrophysical Journal*, **600**, 986-991.

32. O'Hara, Timothy B., Meixner, Margaret, **Speck, Angela K.**, Ueta, Toshiya, Bobrowsky, Matthew, "The Dust Ring of Luminous Blue Variable Candidate HD 168625: Infrared Observations and Model Calculations" 2003 *Astrophysical Journal*, **598**, 1255-1264.

33. Hofmeister, A.M., Keppel, E. & **Speck, A.K.,** "Absorption and reflection infrared spectra pf MgO and other diatomic compounds" 2003, *Monthly Notices of the Royal Astronomical Society*, **345**, 16-38.

34. **Speck, A.K.,** Meixner, M., Jacoby, G.H. & Knezek, P., "Molecular hydrogen in the Ring Nebula: clumpy photo-dissociation regions" 2003, *Publications of the Astronomical Society of the Pacific*, **115**, 170-177.

35. Meixner, M., Ueta, T., Bobrowsky, M., & **Speck, A.K., "**Two Subclasses of ProtoPlanetary Nebulae: Model Calculations" 2002, *Astrophysical Journal*, **571**, 936-946.

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37. **Speck, A.K.,** Meixner, M. & Knapp, G.R., "Discovery of parsec-sized dust shells around AFGL2688 and AFGL 618" 2000, *Astrophysical Journal Letters* , **545**, L145-L148.

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39. **Speck, A.K.,** Hofmeister, A.M., & Barlow, M.J., "Silicon Carbide: The Problem with Laboratory Spectra" 2000, In *Thermal Emission Spectroscopy of Dust, Disks, and Regoliths*, Eds: Sitko M.L., Sprague A.L. & Lynch D.K., ASP Conference Series, vol. 196, 281-290.

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41. Bowey, J. E., Adamson, A. J., **Speck, A.K.**, "Simulation of 10µm Astronomical Spectra with Mixtures of Crystalline and Amorphous Silicates" 2000, In *Thermal Emission Spectroscopy of Dust, Disks, and Regoliths*, Eds: Sitko M.L., Sprague A.L. & Lynch D.K., ASP Conference Series, vol. 196, 31-39.

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White papers/ book chapters etc:

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48. Sahai, R., Balick, B., Blackman, E., Kastner, J., Claussen, M., Morris, M., De Marco, O., **Speck, Angela**, Frank, A., Turner, N., "Understanding Mass-Loss and the Late Evolution of Intermediate Mass Stars: Jets, Disks, Binarity, Dust, and Magnetic Fields" in *Astro2010: The Astronomy and Astrophysics Decadal Survey, Science White Papers*, no. 256.
49. The Science Vision for the Stratospheric Observatory for Infrared Astronomy (SOFIA).

Conference Proceedings:

50. **Speck, Angela K.**, 2012, "Variable Stars and The Asymptotic Giant Branch" in the Journal of the American Association of Variable Star Observers, *in prep (Invited).*
51. **Speck, Angela K.**, 2012, "Variable Stars & The Asymptotic Giant Branch: Stellar Pulsations, Dust Production and Mass Loss" in the Proceedings of Resolving the Future of Astronomy with Long-Baseline Interferometry. Conference held in Socorro, NM, 28-30 March 2011, *in press*.
52. Henry, R. B. C., **Speck, A.**, Karakas, A. I., Ferland, G. J., 2011, "The curious conundrum regarding sulfur and oxygen abundances in planetary nebulae" in the proceedings of the IAU Symposium No. 283, "Planetary Nebulae: An Eye to the Future", *in press*.
53. Pitman, K. M., Dijkstra, C., Hofmeister, A. M., **Speck, A. K**. "IR Laboratory Olivine Spectra: Extracting Peak Parameters Using Classical Dispersion Analysis", 2011, in "Why Galaxies Care about AGB Stars II: Shining Examples and Common Inhabitants". Proceedings of a conference held at University Campus, Viena, Austria, 16-20 August 2010. Edited by F. Kerschbaum, T. Lebzelter, and R.F. Wing. San Francisco: Astronomical Society of the Pacific, **445**, 2011., p.363
54. Guha Niyogi, S.†, **Speck, A.**, Dijkstra, C., "Temperature and Compositional Effects on Spectral Features of the Olivine Minerals" 2011, in Why Galaxies Care about AGB Stars II: Shining Examples and Common Inhabitants. Proceedings of a conference held at University Campus, Viena, Austria, 16-20 August 2010. Edited by F. Kerschbaum, T. Lebzelter, and R.F. Wing. San Francisco: Astronomical Society of the Pacific, **445**, 2011., p. 357.
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56. **Speck, A. K.**, Henry, R., "Can dust and molecules explain the sulphur anomaly in planetary nebulae?", 2010, in the Proceedings of *Asymmetric Planetary Nebulae 5 conference*, held in

Bowness-on-Windermere, U.K., 20 - 25 June 2010, A. A. Zijlstra, F. Lykou, I. McDonald, and E. Lagadec, eds. (2011) Jodrell Bank Centre for Astrophysics.

57. Matsuura, M., **Speck, A. K.**, McHunu, B. M.†, Tanaka, I., Wright, N. J., Smith, M. D., Viti, S., Zijlstra, A. A. "Structure of H_2 molecular knots in the Helix and Dumbbell nebulae", 2010, in the Proceedings of *Asymmetric Planetary Nebulae 5 conference*, held in Bowness-on-Windermere, U.K., 20 - 25 June 2010, A. A. Zijlstra, F. Lykou, I. McDonald, and E. Lagadec, eds. (2011) Jodrell Bank Centre for Astrophysics.

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AGB Stars, editors: F. Kerschbaum, C. Charbonnel & R. Wing, ASP Conference Series, Vol. 378, p.281.

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70. Josh Tartar†, Sarah Eyermann†, **Angela Speck**, Margaret Meixner, "HST Study of the Molecular Gas in Planetary Nebulae", 2006, In Proceedings of *IAU Symposium 234: Planetary Nebulae in Our Galaxy and Beyond*, editors: M.J. Barlow. & R.H. Mendez, p. 525.

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72. Eyermann, S. E.†, **Speck, A. K.**, Meixner, M., McCullough, P. R., Hora, J., "The Nature and Origin of Molecular Knots in Planetary Nebulae", 2006, *Planetary Nebulae as Astronomical Tools*. AIP Conference Proceedings, 804, 145.

73. **Speck, A.K.,**, Meixner, M., & Elitzur, M., "Episodic Mass Loss on the Timescale of Thermal Pulses: Radiative Transfer Modeling" 2003, In the proceedings of the 3rd *Asymmetrical Planetary Nebulae Conference*, Eds. M.Meixner & J.Kastner, ASP Conference Proceedings, Vol. 313. San Francisco: Astronomical Society of the Pacific, 2004., p.303.

74. Meixner, M., McCullough, P., Hartman, J., O'Dell, R., **Speck, A.K.**, "The Hubble Helix" 2003, In the proceedings of the 3rd *Asymmetrical Planetary Nebulae Conference*, Eds. M.Meixner & J.Kastner, ASP Conference Proceedings, Vol. 313. San Francisco: Astronomical Society of the Pacific, 2004., p.234.

75. **Speck, A.K.,**, Meixner, M., Nenkova, M. & Elitzur, M., "Radiative transfer modeling of periodic mass-loss enhancements during the AGB phase" 2002, In the proceedings of the *Workshop on Mass-losing Pulsating Stars and their Circumstellar Matter*, Eds. Y. Nakada & M. Honma, 241.

76. **Speck, A.K.,**, Meixner, M., Knezek, P. & Jacoby, G.H. "High resolution molecular hydrogen imaging of the Ring nebula" 2003, In the proceedings of the *IAU Symposium 209, Planetary Nebulae: Their Evolution and Role in the Universe*, Eds. S. Kwok, M. Dopita & R. Sutherland, 271.

77. **Speck, A.K.,**, & Hofmeister, A.M., "Silicon Carbide as the Carrier of the 21μm feature", 2003, In the proceedings of the *IAU Symposium 209, Planetary Nebulae: Their Evolution and Role in the Universe*, Eds. S. Kwok, M. Dopita & R. Sutherland, 315.

78. **Speck, A.K.,**, Meixner, M., Fong, D. McCullough, P.R., Moser, D.E.* & Ueta, T., " Large-scale extended emission around the Helix Nebula" 2003, In the proceedings of the *IAU Symposium 209, Planetary Nebulae: Their Evolution and Role in the Universe*, Eds. S. Kwok, M. Dopita & R. Sutherland, 316.

79. **Speck, A.K.,**, Meixner, M., Fong & Ueta, T., "ISOPHOT Observations of Post-AGB Stars: Fossil Records of Mass Loss" 2002, In proceedings of the *ISOPHOT Workshop on P32 Oversampled Mapping*, Eds. B. Schulz, S. Peschke, ESA-SP 482, 93.

80. **Speck, A.K.,**, Meixner, M. & Ueta, T., "Big, bumpy dust shells around protoplanetary nebulae" 2001, In proceedings of *Post-AGB objects as a phase of stellar evolution*, Eds. R. Szczerba, S.K. Gorny, Kluwer, Dordrecht, 333.

81. Ueta, T., **Speck, A.K.**, Meixner, M. , Dayal, A., Deutsch, L.K., Fazio, G., Hora, J.L., Hoffmann, W.F., "Spatial Distributions of Multiple Dust Components in the PPN/PN Circumstellar Dust Shells" 2001, In proceedings of *Post-AGB objects as a phase of stellar evolution*, Eds. R. Szczerba, S.K. Gorny, Kluwer, Dordrecht, 339.

82. **Speck, A.K.,**, Meixner, M., Ueta, T. & Knapp, G.R., ". ISOPHOT observations of protoplanetary nebulae: evidence for extremely extended dust shells around post-AGB objects" 2001, In proceedings of *Tetons 4: Galactic Structure, Stars and the Interstellar Medium*, Eds. C.E. Woodward, M.D. Bicay, and J.M. Shull, A.S.P. conf. ser. **231**, 550.

83. **Speck, A.K.,**, Barlow, M.J., & Sylvester, R.J., "Mineralogy of dust around oxygen-rich evolved stars" 2001, In proceedings of *Tetons 4: Galactic Structure, Stars and the Interstellar Medium*, Eds. C.E. Woodward, M.D. Bicay, and J.M. Shull, A.S.P. conf. ser. **231**, 553.

84. **Speck, A.K.,** Meixner, M., & Knapp, G.R., "Circumstellar Dust Around Post-AGB Stars" 2000, In Proceedings of *ISO Beyond Point Sources: Studies of Extended Infrared Emission*, September 14-17, 1999, ISO Data Centre, Villafranca del Castillo, Madrid, Spain. Edited by R. J. Laureijs, K. Leech and M. F. Kessler, ESA-SP 455, 2000. p. 83.

85. Hofmeister, A.M., Keppel, E.T., Bowey, J.E., & **Speck, A.K.,** "Causes of artifacts in the infrared spectra of powders" 2000, In Proceedings of *ISO beyond the peaks: The 2nd ISO workshop on analytical spectroscopy*, February 2-4, 2000, at ISO Data Centre, Villafranca del Castillo, Madrid, Spain. Edited by A. Salama, M.F.Kessler, K. Leech & B. Schulz. ESA-SP 456, 2000. p 343.

86. **Speck, A.K.,** & Barlow, M.J., "UIR Bands in Carbon Stars" 1997, *Astrophysics & Space Science* , **251** pp115-121. Also in *Dust & Molecules in Evolved Stars*: Conference Proceedings

87. **Speck, A.K.,** Barlow, M.J., & Skinner, C.J., "Observations of the 11 micron Silicon Carbide Feature in Carbon Star Shells" 1996, In *From Stardust to Planetesimals: Contributed Papers,* Eds: M.E.Kress, A.G.G.M. Tielens and Y.J. Pendleton, NASA Conf. Publ. 3343, California, pg 61.

***Selected Abstracts** (i.e. abstracts that did not subsequently become conference proceedings papers)*

1. 3D Virtual Reality for Teaching Astronomy – ORAL
   Angela Speck, L. Ruzhitskaya‡, J. Laffey, N. Ding
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #227.03
2. Astronomy in Sustainable Energy: A New Approach to Make It Matter – ORAL
   Lanika Ruzhitskaya‡, **Angela Speck**
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #227.06
3. Bringing Science Public Outreach to Elementary Schools – ORAL
   Lucas Miller*, **A. Speck**, A. Tinnin
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #210.06
4. Investigating Chemical Compositions of Select Saturnian Satellites via Mosaicking of Cassini VIMS Observations – POSTER
   Laura Hosmer*, C. Dalle Ore, R. Mastrapa, **A. Speck.**
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #334.14
5. Differential Depletion of Mg and Fe in Planetary Nebulae: Implications for the Composition of AGB-Star Dust – POSTER
   Harriet L. Dinerstein, F. Prasla, **A. K. Speck**
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #343.01
6. Spitzer SAGE/LMC Observations Of Extreme Carbon Stars As A Probe Of Carbon-rich Stardust Properties – POSTER
   Nicholas Parmley*, **A. K. Speck**, A. J. Mulia*, SAGE-Spec team
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #343.02
7. The Enigmatic 13 micron Feature in the Spectra of AGB Stars – POSTER
   Nelson De Souza†, **A. K. Speck**
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #343.03
8. Modeling the Effect of Pulsation on the Dust Spectrum of Carbon Star V Cyg – POSTER
   Angela Speck, B. Hester*, A. Corman†, K. Volk, G. C. Sloan
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #343.04
9. Understanding Stardust via Spatially-Resolved Spectroscopy: A Case Study on R Hya – POSTER
   Aaron Kaberline*, S. Guha Niyogi†, **A. K. Speck**, K. Volk
   American Astronomical Society Meeting 219, Austin, TX, January 2012, #343.11
10. The Effect Of Metallicity And C/O On The Low-Contrast Dust Features Of Low-Mass-Loss Rate O-Rich AGB Stars – POSTER
    David J. Arrant†, **A. K. Speck**, S. J. Chan‡
    American Astronomical Society Meeting 219, Austin, TX, January 2012, #343.13
11. Mass-loss History of a 'typical' AGB Star, Mira, Using Far-Infrared Imaging Photometry – POSTER
    Basil Menzi Mchunu†, **A. K. Speck**
    American Astronomical Society Meeting 219, Austin, TX, January 2012, #439.24

12. UV-Visible Laboratory Spectra Of Presolar Oxide And CAI Analogs: Corundum, Spinel, Hibonite, And Melilites – ORAL
Karly M. Pitman, A. M. Hofmeister, **A. K. Speck**
American Astronomical Society Meeting 219, Austin, TX, January 2012, #320.01

13. Mini-Journals: Incorporating Inquiry, Quantitative Skills and Writing into Homework Assignments for Geochemistry and Planetary Science – POSTER
Whittington, A.G., **Speck, A.K.**, Witzig, S.B., and Abell, S.K.,
EOS, Transactions AGU. AGU Fall meeting, San Francisco, CA. Abstract ED11A-0757

14. Analyzing Dust Spectra Of Oxygen-rich AGB Stars Using Spatially Resolved Spectroscopy – POSTER
Guha Niyogi, Suklima†, **Speck, A. K.**, Volk, K.
American Astronomical Society Meeting 218, Boston, MA, May 2011, #322.04

15. Through The Looking Glass: New Laboratory Spectra Of Glassy Silicates For The Comparison To Astrophysical Environments – POSTER
Speck, Angela, Whittington, A., Hofmeister, A.
American Astronomical Society Meeting 218, Boston, MA, May 2011, #129.22

16. Variable Stars and The Asymptotic Giant Branch: Stellar Pulsations, Dust Production and Mass Loss – ORAL
Speck, Angela
American Astronomical Society Meeting 218, Boston, MA, May 2011, #114.04

17. Peer interaction: help or distraction? – ORAL
Ruzhitskaya, L.†, **Speck, A. K.**
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #405.07

18. Guided Versus Unguided Learning: Which One To Choose? – ORAL
Ruzhitskaya, L.†, **Speck, A. K.**
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #405.06

19. Identity Crisis: True Composition of Circumstellar Dust Questioned – POSTER
Miller, L.*, **Speck, A. K.,** Guha Niyogi, S.†
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #250.16

20. Effects of Temperature and Composition on Spectral Features of the Olivine minerals – POSTER
Guha Niyogi, S.† **Speck, A. K.,** Dijkstra, C.
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #250.15

21. Studying the Effect of C/O Ratio on Dust around Carbon Star – POSTER
Knoll, H.* **Speck, A. K.,**
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #250.14

22. The Effect Of Chemical Abundances On Dust Formation: Stellar Nucleosynthesis Vs. Metallicity. – POSTER
Speck, A. K., Chan, S.J.‡
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #250.12

23. Understanding S Stars by C/O Ratios and s-Process Element Abundances – POSTER
Arrant, D.†, **Speck, A. K.**,
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #250.11

24. UV-Visible Laboratory Spectra Of Dust Analogs: Mg-silicates, Spinel, And Glasses – POSTER
Pitman, Karly M.‡, Hofmeister, A. M., **Speck, A. K.**,
American Astronomical Society Meeting 217, Seattle, WA, January 2011, #112.06

25. Can dust and molecules explain the sulphur anomaly in planetary nebulae? - POSTER
Speck, A. K., Henry, R.
Asymmetric Planetary Nebulae 5 conference, held in Bowness-on-Windermere, U.K., 20 - 25 June 2010

26. Incorporating inquiry into upper-level undergraduate homework assignments: The Mini-Journal. – POSTER
Whittington, A.G., **Speck, A.K.**, Witzig, S.B., and Abell, S.K.,
EGU Annual meeting, Vienna, Austria. 2010

27. Dust from Evolved Stars to Protostars – ORAL
Meteoritical Society Pre-meeting Workshop on Disks, Meteorites, Planetessimals, July 23 – 24, 2010, New York, NY. Abstract No. 6018.

28. The Origin of Presolar Silica Grains in AGB Stars – POSTER
Bose, M., Floss, C., Stadermann, F. J., Stroud, R. M., **Speck, A. K.**
41st Lunar and Planetary Science Conference, held March 1-5, 2010 in The Woodlands, Texas. LPI Contribution No. 1533, p.1812

29. Laboratory Spectra of Astronomical Dust Analogs at Ultraviolet-Visible Wavelengths – POSTER
Pitman, Karly M.‡, Hofmeister, A. M., **Speck, A. K.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #476.03

30. A New Method For Obtaining Optical Constants In The Near-IR To UV From Single-Crystal Absorption Spectra: SiC And Silicates As Examples – POSTER
Hofmeister, Anne M., Pitman, K. M.‡, **Speck, A. K.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #476.02.

31. Virtual Jupiter - Real Learning – POSTER
Ruzhitskaya, Lanika†, **Speck, A.,** Laffey, J.
American Astronomical Society Meeting 215, Washington, DC, January 2010, #466.06

32. The Mass Loss Return from Evolved Stars to the Large Magellanic Cloud: Oxygen-Rich Asymptotic Giant Branch Stars – POSTER
Sargent, Benjamin A., Srinivasan, S., Meixner, M., Kemper, F., Tielens, X., **Speck, A.,** Matsuura, M., Bernard, J., Hony, S., Gordon, K., and 5 coauthors
American Astronomical Society Meeting 215, Washington, DC, January 2010, #459.06

33. Can Dust and Molecules Explain the Sulfur Anomaly in Planetary Nebulae?
Speck, Angela, Henry, R. – POSTER
American Astronomical Society Meeting 215, Washington, DC, January 2010, #454.22

34. New SiC Optical Constants – POSTER
Corman, Adrian†, **Speck, A.,** Hofmeister, A., Pitman, K‡.
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.23

35. Spitzer Reveals New Insights into Mass Loss History of Evolved Stars
Geise, Kathleen M., Ueta, T., **Speck, A. K.**, Izumiura, H., Stencel, R. E.

American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.14

36. The Relationship Between the Dust Condensation Sequence for Oxygen-rich Circumstellar Environments and the C/O Ratio . – POSTER
Chan, S. Josephine[‡], **Speck, A. K**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.12

37. Testing The Sensitivity Of Spectral Feature Parameters To Analysis Methods - "10 Micron" Features In OH/IR Stars – POSTER
Randolph, Cindy*, Myers, E.*, **Speck, A.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.07

38. Laboratory Spectra of Glassy Silicates for the Comparison to Astrophysical Environments – POSTER
Newgard, Arielle L.[†], **Speck, A.**, Whittington, A., Hofmeister, A., Tartar, J.[†], Williams, K.*
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.06

39. Identity Crisis: True Composition of Circumstellar Dust Questioned – POSTER
Miller, Lucas*, **Speck, A.**, Guha Niyogi, S.[†]
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.05.

40. A Temporal Study of O-rich Pulsating Variable AGB Star, T Cep: Investigation on Dust Formation, Mineralogy and Morphology of Dust Grains – POSTER
Guha Niyogi, Suklima,[†] **Speck, A.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.04

41. Mythbusting Stardust Formation Scenarios: Crystalline Silicates And New Insights Into Oxygen-rich AGB Stars. – POSTER
Fletcher, Corinne,* **Speck, A.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.02

42. The 8-14 Micron Feature in S Stars: O Positive or O Negative – POSTER
Arrant, David J.[†], **Speck, A.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #431.01

43. Comparing Carbon Dust Grain Types from the Milky Way and the Large Magellanic Cloud – POSTER
Mulia, Alexander,* **Speck, A. K.**
American Astronomical Society Meeting 215, Washington, DC, January 2010, #428.09

44. Focusing on the Processes of Science Using Inquiry-oriented Astronomy Labs for Learning Astronomy - ORAL
Speck, Angela, Ruzhitskaya, L.[†], Whittington, A., Witzig, S.
American Astronomical Society Meeting 215, Washington, DC, January 2010, #21706S

45. Incorporating inquiry into upper-level homework assignments: The mini-journal. – POSTER
Whittington, A.G., **Speck, A.K.**, Witzig, S.B., and Abell, S.K.
AGU Fall meeting, San Francisco, CA, 2009.

46. What do students in an introductory astronomy course believe science is? – POSTER
Hanuscin, D., **Speck, A.**, & Ruzhitskaya, L.
American Association of Physics Teachers. Chicago, IL, February 2009.

47. PAH Formation: 3.3 And 11.3 μm Data - POSTER
Caputo, Daniel P.[†], **Speck, A.**, Volk, K., Barlow, M., Wesson, R.
American Astronomical Society Meeting 214, Pasadena, June 2009, #402.11

48. Optical Properties Of Silicon Carbide: Implications Of New Laboratory Data - POSTER
Corman, Adrian[†], **Speck, A.**, Hofmeister, A., Pitman, K.[‡]
American Astronomical Society Meeting 214, Pasadena, June 2009, #402.09

49. Through The Looking Glass: The Causes Of Variations In "Amorphous" Silicate Spectral Features - POSTER
Speck, Angela, Hofmeister, A. M., Whittington, A. G.
American Astronomical Society Meeting 214, Pasadena, June 2009, #402.08

50. Using Classical Dispersion Analysis to Extract Peak Parameters, Optical Constants from IR Lab Absorbance Spectra: Olivine - POSTER
Pitman, Karly M.[‡], Dijkstra, C. R.[‡], Hofmeister, A. M., **Speck, A. K.**
American Astronomical Society Meeting 214, Pasadena, June 2009, #402.07

51. The Relationship Between C/O Ratio and the Dust Condensation Sequence for O-rich Circumstellar Environments - POSTER
Chan, S. Josephine[‡], **Speck, A.**
American Astronomical Society Meeting 214, Pasadena, June 2009, #402.04

52. The Effect of Stellar Pulsation Cycles on Dust Formation: A Temporal Study of the Mid-infrared Spectrum of O-rich AGB Star, T Cep. - POSTER
Guha Niyogi, Suklima[†], **Speck, A.**
American Astronomical Society Meeting 214, Pasadena, June 2009, #402.02

53. Kepler's Laws in an Introductory Astronomy Laboratory: The Influence of a Computer-based Simulation Used With Multiple Variables - ORAL
Ruzhitskaya, Lanika[†], French, R. S., **Speck, A.**
American Astronomical Society Meeting 214, Pasadena, June 2009, #312.03

54. The Dusty Universe - From Spitzer to Herschel: Dust Formation and Spectroscopy - ORAL
Speck, Angela
American Astronomical Society Meeting 214, Pasadena, June 2009, #232.03

55. Stellar Pulsation and the Variability of Infrared Spectral Features – POSTER
Speck, Angela, Guha Niyogi, Suklima[†]
American Astronomical Society Meeting 213, Long Beach, CA, January 2009, #412.03

56. Misconceptions in Astronomy: Before and After a Constructivist Learning Environment - ORAL
Ruzhitskaya, Lanika[†], **Speck, Angela**
American Astronomical Society Meeting 213, Long Beach, CA, January 2009, #353.04

57. Innovations in Inquiry-Based Laboratory Exercises for Non-Majors Astronomy Courses: Connecting Undergraduates with the Enterprise of Science - ORAL
Speck, Angela, Ruzhitskaya, Lanika[†], Weaver, Jan
American Astronomical Society Meeting 213, Long Beach, CA, January 2009, #353.03

58. Examining the importance of the input spectrum when modeling S Stars
Arrant, David[†], **Speck, Angela**, Volk, Kevin
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

59. Understanding the Formation of PAHs: A case study on carbon-rich AGB stars
Caputo, Dan[†], **Speck, Angela**, Volk, Kevin, Barlow, Mike
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

60. The Silicon Carbide Feature of V Cyg
Corman, Adrian[†], **Speck, Angela**, Volk, Kevin, Barlow, Mike, Sloan, Greg.
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

61. New Silicon Carbide Optical Constants
Corman, Adrian[†], **Speck, Angela**, Pitman, K.[‡], Hofmeister, A.M.
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

62. Extended Circumstellar Dust Shells of post-AGB Stars: ISOPHOT imaging
Mchunu, B.M.[†], **Speck, Angela**,
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

63. The effect of stellar pulsation cycles on dust formation: a temporal study of the mid-infrared spectrum of O-rich AGB star, T Cep
Guha Niyogi, Suklima[†], **Speck, Angela**
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

64. The Formation of crystalline silicate: Lessons from an obscured O-rich AGB star
Speck, Angela, Whittington, Alan, Tartar, J. B.[†]
Cosmic Dust – Near and Far, Heidelberg Germany, September 2008.

65. Far Infrared Observations Of Oxygen Rich AGB Stars Using ISOHOT Imaging - POSTER
Mchunu, B.M.[†], **Speck, A.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #17.10

66. Project CLEA - The Moons of Jupiter: Understanding the Kepler's Laws in Astronomy 101 - POSTER
Ruzhitskaya, L.[†], **Speck, A.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #40.02

67. Understanding Dust Formation around AGB Stars: Rethinking the Condensation Sequence around S Stars - POSTER
Arrant, D.J.[†], Taylor, M., **Speck, A.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #06.08

68. Understanding The Conditions For Crystalline Silicate Formation: Lessons From An Obscured AGB Star - POSTER
Speck, A., Whittington, A.
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #06.07

69. Circumstellar Crystalline Silicates: Evolved Stars - POSTER
Tartar, J.[†], **Speck, A.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #06.06

70. The Formation of PAHs: A Case Study on Carbon-rich AGB Stars - POSTER
Caputo[†], J., **Speck, A.**, Barlow, M.J., Wesson, R., Volk, K., Clayton, G.C.
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #06.04

71. Understanding the Dust Condensation Sequence for O-rich AGB through Radiative Transfer Modeling. - POSTER

Smith, Anthony*, Wheeler, C.H.*, **Speck, A.K.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #06.03

72. Investigating The Effect Of The C/O Ratio On Dust Formation Around Carbon Stars - POSTER
Corman, Adrian†, **Speck, A.K.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #06.01

73. Quantitative Laboratory Measurements Of IR Spectra Of Diverse Glasses Suggest That Dust In Space Is Crystalline - POSTER
Hofmeister, Anne M., **Speck, A.K.**
American Astronomical Society Meeting 212, St Louis, MO, June 2008, #03.34

74. Unidentified infrared bands and the formation of PAHs around carbon stars - ORAL
Speck, A., Barlow, M.J., Wesson, R., Volk, K., Clayton, G.C.
IAU Symposium 251: Organic Matter in Space, Hong Kong, China, February 2009.

75. Preliminary Infrared Spectral Models of S Star Circumstellar Dust - POSTER
Arrant, David J.†, **Speck, A**
American Astronomical Society Meeting 211, Austin, TX, January 2008, #93.14

76. Understanding Extreme Carbon Stars: Condensation Temperature, Grain Sizes, and Silicon Carbide Absorption - POSTER
Corman, Adrian†, **Speck, A.**
American Astronomical Society Meeting 211, Austin, TX, January 2008, #93.08

77. Understanding the Dust Condensation Sequence in "13μm-Feature" Oxygen-Rich AGB Stars Using Radiative Transfer Models - POSTER
Wheeler, Caleb*, **Speck, A. K.**
American Astronomical Society Meeting 211, Austin, TX, January 2008, #93.05

78. Modeling the Effect of the Silicate Condensation Sequence on AGB Stellar Spectrum - POSTER
Smith, Anthony A.*, **Speck, A. K.**
American Astronomical Society Meeting 211, Austin, TX, January 2008, #93.04

79. IRAS 17495-2534: A Symbiotic Star with Crystalline Silicates or Evidence of Crystalline Silicates in the ISM? - POSTER
Speck, Angela, Whittington, Alan
American Astronomical Society Meeting 211, Austin, TX, January 2008, #93.01

80. Stellar Properties in the Classroom: From Parallax to Radius - ORAL
Ruzhitskaya, Lanika†, **Speck, A.**
American Astronomical Society Meeting 211, Austin, TX, January 2008, #70.07

81. The Effect of Grain Size and Shape on the Spectrum of Silicon Carbide - POSTER
Azmeh, Chris*, Corman, A.†, **Speck, A.K.,** Pitman, K.‡, Hofmeister, A.
American Astronomical Society Meeting 211, Austin, TX, January 2008, #93.13

82. Dust at Low Metallicity: Spitzer Observations of AGB Stars in NGC 6822 - POSTER
Schuyler Van Dyk, Ciska Kemper, **Angela Speck**, Ryzsard Szczerba, Margaret Meixner, E. Peeters & T.Ueta
American Astronomical Society Meeting 209, Seattle, WA, January 2007, #168.13

83. Laboratory Infrared Optical Constants and Reflectance Spectra of Silicon Carbide - POSTER
Karly M. Pitman[‡], Anne M. Hofmeister & **Angela K. Speck**
American Astronomical Society Meeting 209, Seattle, WA, January 2007, #06.02

84. Spitzer/MIPS infrared imaging of extremely extended circumstellar shells - TALK
Angela Speck & the MIRIAD team
Why Galaxies Care About AGB Stars, Vienna, Austria, August 7-11th 2006.

85. The Carbon Star Dust Sequence: Evolution of the SiC in Dust Circumstellar Outflows of C-Stars - POSTER
Adrian Corman[†], Grant Thompson*, **Angela Speck** & Catharinus Dijkstra[‡]
Why Galaxies Care About AGB Stars, Vienna, Austria, August 7-11th 2006.

86. SiO_2 Around O-rich AGB Stars - Astromineralogy & The "13μm" Feature – POSTER
Kyle DePew[†], **Angela Speck**, Anthony Smith*, Catharinus Dijkstra* & Anne Hofmeister.
Why Galaxies Care About AGB Stars, Vienna, Austria, August 7-11th 2006.

87. Tracing the mass loss Histories of post-AGB Stars : ISOPHOT imaging – POSTER
B.M. Mchunu[†], **Angela Speck** & Margaret Meixner
Why Galaxies Care About AGB Stars, Vienna, Austria, August 7-11th 2006.

88. CLOUDY Modeling of Weird Far-IR Emission in the Central Zone of the Helix Nebula - POSTER
Adrienne Dove* & **Angela Speck** - POSTER
IAU Symposium 234: Planetary Nebulae in our Galaxy and Beyond, Waikaloa, HI, April 3-7 2006.

89. Spitzer/MIPS Infrared Imaging of the Extremely Extended Circumstellar Dust Shells - POSTER
Angela K. Speck, Toshiya Ueta, Robert Stencel & the MIRAD team.
IAU Symposium 234: Planetary Nebulae in our Galaxy and Beyond, Waikaloa, HI, April 3-7 2006.

90. An HST Study of the Molecular Gas in Planetary Nebulae - POSTER
Josh Tartar[†], **Angela Speck**, & Sarah Eyermann[†]
IAU Symposium 234: Planetary Nebulae in our Galaxy and Beyond, Waikaloa, HI, April 3-7 2006.

91. The 3μm water ice/vapour feature of (post-)AGB stars - POSTER
Dijkstra, C.[‡], Justtanont, K., Dominik, C., Waters, L., Matsuura, M., **Speck, A.K.**, Cami, J., Yamamura, I.
American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.18

92. Tracing the mass-loss histories of (post-)AGB stars: ISOPHOT imaging - POSTER
Mchunu, B. M.[†], **Speck, A. K.** Meixner, M.
American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.17

93. SiO2 Around O-rich AGB Stars - Mineralogy & The "13μm" Feature - POSTER
DePew, K. D. [†], **Speck, A. K.**, Dijkstra, C.[‡], Hofmeister, A. M.
American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.16

94. Spitzer/MIPS Infrared Imaging of the Extremely Extended Circumstellar Dust Shell of HD 161796 - POSTER
Speck, A. K., Ueta, T., Stencel, R., MIRIAD Collaboration

American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.15

95. Radiative Transfer Modeling of the Extended Dust Shell of AFGL 618 - POSTER
Tartar, J.[†], **Speck, A.**, Meixner, M., Nenkova, M., Elitzur, M.
American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.14

96. The Carbon Star Dust Sequence: Evolution of SiC Dust Circumstellar Outflows of C-Stars - POSTER
Thompson, G. D.*, **Speck, A. K.**, Dijkstra, C.[‡]
American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.07

97. An Investigation of the Dust Shells Around Carbon Stars Using Radiative Transfer Modeling - POSTER
Corman, A. B.*, **Speck, A. K.**
American Astronomical Society Meeting 207, Washington, DC, January 2006 #182.05

98. HST study of the molecular gas in planetary nebulae - POSTER
Hamacher, D.*, Eyermann, S.*, **Speck, A. K.**, Meixner, M.
American Astronomical Society Meeting 207, Washington, DC, January 2006 #08.08

99. Mineralogy of Dust in the Outflows of Asymptotic Giant Branch Stars - ORAL
Speck, A.K.
American Astronomical Society Meeting 206, Minneapolis, MN, June 2005 #28.02 (invited talk)

100. Submillimeter Imaging of Fossil Dust Shells around Post-AGB Stars - POSTER
Wilson, K.*, **Speck, A.**, Lis, D., Meixner, M.
American Astronomical Society Meeting 206, Minneapolis, MN, June 2005 #08.04

101. Modeling Periodic Mass-loss Changes in the Fossil Shells around Post-AGB Stars - POSTER
Tartar, J.*, **Speck, A.**, Meixner, M., Elitzur, M.
American Astronomical Society Meeting 206, Minneapolis, MN, June 2005 #06.06

102. The Nature and Evolution of Silicon Carbide in the Outflows of Carbon Stars - POSTER
Thompson, G. D.*, **Speck, A. K.**, Hofmeister, A. M.
American Astronomical Society Meeting 206, Minneapolis, MN, June 2005 #06.05

103. Dust around evolved stars in the Magellanic Clouds - POSTER
Reid, B.*, **Speck, A.**, Dijkstra, R.*
American Astronomical Society Meeting 206, Minneapolis, MN, June 2005 #06.03

104. Mineralogy of Dust Around O-rich AGB Stars - The "13um" Feature
DePew, K.*, **Speck, A.K.**,
American Astronomical Society Meeting 206, Minneapolis, MN, June 2005 #06.04

105. The Evolution of Molecular Hydrogen in Planetary Nebulae - POSTER
Eyermann, S. E.*, **Speck, A.K.**
American Astronomical Society Meeting 205, San Diego, CA, January 2005 #138.11

106. Astromineralogy of Intermediate Mass Evolved Stars in the Magellanic Clouds - POSTER
Reid, R. B.*, **Speck, A.K.**
American Astronomical Society Meeting 205, San Diego, CA, January 2005 #58.03

107. Stardust: observational evidence of mass-loss processes in the history of the Egg Nebula - POSTER

Tartar, J.*, **Speck, A.K.**
American Astronomical Society Meeting 205, San Diego, CA, January 2005 #58.02

108. Silicon carbide: a case study in the astrophysics of stardust - POSTER
Speck, A.K.
American Astronomical Society Meeting 205, San Diego, CA, January 2005 #58.01

109. Observational Evidence for Presolar Grains around Oxygen-rich Evolved Stars - POSTER
Speck, A.K., Hofmeister, A. M.
American Astronomical Society Meeting 203, Atlanta, GA, January 2004 #49.06

110. Processing of presolar grains around post-AGB stars: SiC as the carrier of the ``21"μ m feature - POSTER
Hofmeister, A. M., **Speck, A.K.**
American Astronomical Society Meeting 203, Atlanta, GA, January 2004 #49.09

111. Episodic Mass Loss on the Timescale of Thermal Pulses: Radiative Transfer Modeling - POSTER
Miller, B. A.*, **Speck, A.K.**, Meixner, M.
American Astronomical Society Meeting 203, Atlanta, GA, January 2004 #49.08

112. The carrier of the 13mu m feature in the spectra of O-rich AGB stars - POSTER
Mora, M. Y.*, **Speck, A.K.**,
American Astronomical Society Meeting 203, Atlanta, GA, January 2004 #137.02

113. Observational Evidence for Presolar Grains around Oxygen-rich Evolved Stars - ORAL
Speck, A.K., Hofmeister, A. M., Mora, M.*
Workshop on Cometary Dust in Astrophysics, Mt Rainier, WA, August 2003

114. Absorption and reflection IR spectra of MgO and other diatomic compounds. - POSTER
Hofmeister, A. M., **Speck, A.K.**
Astrophysics of Dust Conference, Estes Park, CO, May 2003

115. Episodic Mass Loss on the Timescale of Thermal Pulses: Submillimeter Observations of Dust Shells. - POSTER
Speck, Angela, Lis, Darek, Meixner, Margaret, Knapp, Gillian
Astrophysics of Dust Conference, Estes Park, CO, May 2003

116. Episodic Mass Loss on the Timescale of Thermal Pulses: Radiative Transfer Modeling - POSTER
Speck, Angela, Nenkova, Maia, Meixner, Margaret, Elitzur, Moshe, Knapp, Gillian
Astrophysics of Dust Conference, Estes Park, CO, May 2003

117. The Dust Ring of LBV Candidate HD 168625 - POSTER
O'Hara, T.B., Meixner, M., **Speck, A.K**., Ueta, T., Bobrowsky, M.
American Astronomical Society Meeting 201, Seattle, WA, January 2003

118. Near-IR and BIMA CO Observations of the Red Rectangle - POSTER
Doering, R., Meixner, M., Fong, D., Zalucha, A., Maxham, A., **Speck, A.K.**
American Astronomical Society Meeting 201, Seattle, WA, January 2003

119. Periodic Enhancements in Mass Loss on the AGB: Radiative transfer modeling of the parsec-sized dust shell around the Egg Nebula - POSTER
Speck, A.K.,, Meixner, M., Nenkova, M. & Elitzur, M.,

"Workshop on Mass-losing Pulsating Stars and their Circumstellar Matter, Sendai Japan, May 2002.

120. Processing of Presolar Grains Around Post-AGB Stars: Silicon Carbide as the Carrier of the 21μm Feature - ORAL
Speck, A.K., & Hofmeister, A.M.,
Lunar & Planetary Science Conference, Houston, **33**, #1155, March 2002.

121. Formation of Presolar Crystalline Silicates: The Effect of ^{26}Al - ORAL
Speck, A.K.,, Kemper, F., Whittington, A.G., Molster, F.J. & Herwig, F.,
Lunar & Planetary Science Conference, Houston, **33**, #1155, March 2002.

122. Large-scale extended emission around the Helix Nebula - ORAL
Speck, A.K. Meixner, M., Fong, D. McCullough, P.R., Moser, D.E. & Ueta, T.
American Astronomical Society Meeting 199, Washington DC, January 2002

123. Dust around oxygen-rich evolved stars – ORAL
Speck, A.K., Hofmeister, A.M., Barlow, M.J. & Sylvester, R.J.
Workshop on Interstellar Silicates, Leiden, The Netherlands, April 2001

124. Observations of Circumstellar Dust Shells Around Proto-Planetary Nebulae - POSTER
Meixner, M, **Speck, A.K.**, Ueta, T., Knapp, G., Hoffmann, W., Hinz, P.M., Hora, J., Fazio, G., Deutsch, L.
American Astronomical Society Meeting 197, #06.13

125. Infrared Studies of Silicon Carbide - POSTER,
Speck, A.K., & Hofmeister, A.M.
at 63rd Annual Meeting of the Meteoritical Society: Chicago, IL, August 28 - September 1, 2000:

126. Observational Evidence for Presolar Grains around Oxygen-rich Evolved Stars - ORAL ,
Speck, A.K., Hofmeister, A.M. Barlow, M.J. & Sylvester, R.J.,
at 63rd Annual Meeting of the Meteoritical Society: Chicago, IL, August 28 - September 1, 2000

127. Silicon Dioxide in the Infrared Spectra of Oxygen-rich Evolved Stars - POSTER,
Speck, A.K., Barlow, M.J., & Sylvester, R.J.,
at Astrochemistry: From Molecular Clouds to Planetary Systems, IAU Symposium 197, Cheju Island, South Korea, Aug 23-27, 1999

128. Resolution of the SiC problem: astronomical and meteoritic evidence reconciled - POSTER
Speck, A.K., Hofmeister, A.M., & Barlow, M.J.,
at Asymptotic Giant Branch Stars, IAU Symposium 191 Poster Session, #P3-21, held in Montpellier, France, Aug 28 – Sept 1, 1998

129. Silicon Carbide: astronomical and meteoritic evidence reconciled – POSTER
Speck, A.K., Hofmeister, A.M., & Barlow, M.J.,
at the Faraday Discussion no. 109: Chemistry and Physics of Molecules and Grains in Space, The University of Nottingham, UK, 15-17 April 1998. - *joint winner of the Skinner Poster Prize.*

130. Silicon Carbide absorption features in the outflows of carbon stars - POSTER
Speck, A.K., & Barlow, M.J.,

at the "Conference on the Astrophysical Implications of the Laboratory Study of Presolar Materials", Washington University, St Louis, MO, October 1996

131. Observations of the 11 micron Silicon Carbide Feature in Carbon Star Shells - POSTER
Speck, A.K., Barlow, M.J., & Skinner, C.J.
at the IAU Symposium 177 "The Carbon Star Phenomenon", Antalya, Turkey, May 1996.

132. Digital elevation models of the North Polar regions of Mars - POSTER,
Speck, A.K., Murray, J.B., & Rothery, D.A.,
1995, *L.P.S.C.*, **26**, 1017.
(I was involved in this work after the abstract was submitted - my name does not appear on this abstract - but it did appear on the poster - the other authors can confirm my involvement in this work.)