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RESEARCH AREAS: STARDUST AND ORGANICS IN EXTRATERRESTRIAL SAMPLES; VOLATILES IN GRAINS FROM ASTEROID SURFACES; CHARACTERIZATION OF MATERIALS AND DEVELOPMENT OF MASS SPECTROMETRY TECHNIQUES FOR NANOSCALE IMAGING WITH NANOSIMS

EDUCATION:

2011	Ph.D. (Physics)	Washington University in St. Louis
2007	M.A. (Physics)	Washington University in St. Louis
2003	M.Sc. (Physics)	University of Pune, India

PROFESSIONAL POSITIONS:

2017–*	Assistant Professor	School of Earth and Space Exploration, ASU
2015–2017	Assistant Research Professor	School of Molecular Sciences, ASU
2011–2015	Postdoctoral Scholar	School of Molecular Sciences, ASU
2003–2004	Lecturer in Physics Dept.	Fergusson College, Pune, India

SELECTED PUBLICATIONS:

- Bose M.**, Root R., and Pizzarello S. (2017) A XANES and Raman investigation of sulfur speciation and structural order in Murchison and Allende meteorites. *Meteoritics and Planetary Science* 52, 546–559.
- Rubin A. E., Cooper K. M., Till C. B., Kent A. J. R., Costa F., **Bose M.**, Gravelly D., Deering C., and Cole J. (2017) Rapid cooling and cold storage in a silicic magma reservoir recorded in individual crystals. *Science* 356, 1154–1156.
- Guida B. S., **Bose M.**, and Garcia-Pichel F. (2017) Carbon fixation from mineral carbonates. *Nature Communications*, Accepted.
- Tang M., Rudnick R. L., McDonough W. F., **Bose M.**, Goreva Y. (2017) Multi-mode Li diffusion in natural zircons. *Earth and Planetary Science Letters* 474, 110–119.
- Pizzarello S. and **Bose M.** (2015) The path of reduced nitrogen toward early earth: The cosmic trail and its solar shortcuts. *The Astrophysical Journal* 814, 107–114.
- Bose M.**, Zega T. J., Williams P. (2014) Assessment of alteration processes on circumstellar and interstellar grains in Queen Alexandra Range 97416. *Earth and Planetary Science Letters* 399, 128–138.
- Zhao X., Floss C., Yangtin L., and **Bose M.** (2013) Stardust investigation into the CR chondrite GRV 021710. *The Astrophysical Journal* 769, 49–65.
- Bose M.**, Floss C., Stadermann F. J., Stroud R. M., Speck A. K. (2012) Circumstellar and interstellar material in the CO3 chondrite ALHA77307: An isotopic and elemental investigation. *Geochimica et Cosmochimica Acta* 93, 77–101.
- Bose M.**, Floss C. and Stadermann F. J. (2010) An Investigation into the origin of Fe-rich presolar silicates in Acfer 094. *The Astrophysical Journal* 714, 1624–1636.
- Bose M.**, Zhao X., Floss C., Stadermann F. J., and Lin Y. (2010) Stardust material in the paired enstatite chondrites: SAH 97096 and SAH 97159. *Proceedings of Science, Nuclei in the cosmos* NIC XI–138.
- Floss C., Stadermann F. J., and **Bose M.** (2008) Circumstellar Fe oxide from the Acfer 094 carbonaceous chondrite. *The Astrophysical Journal* 672, 1266–1271.