

## Curriculum Vitae (with publications)

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### *Personal Data:*

**Name:** Ralph Peter Harvey **Phone:** (216) 368-0198  
**Address:** Department of Geological Sciences **E-mail:** rph@po.cwru.edu  
112 A. W. Smith Building **Fax:** (216) 368-3691  
Case Western Reserve University  
Cleveland, Ohio 44106-7216

**Education:** **B.S.**, Beloit College, 1983, in Geology.  
**Ph.D.**, University of Pittsburgh, 1990, in Geology and Planetary Science.

### *Biographical Summary:*

16 years undergraduate and graduate teaching experience including planetary physics, cosmochemistry, introductory geology, planetary geology, igneous and metamorphic geology, advanced geochemistry, planetary materials, introduction to geological research, precambrian geology and instrumental analysis. Active research across a wide spectrum of geology including: the mineralogy and geochemistry of meteorites, with a focus on martian meteorites and micrometeorites; meteorite and micrometeorite recovery and concentration mechanisms, predominantly in polar settings; the recent history of polar icesheets; cryogenic weathering and associated mineralogical alteration mechanisms on Earth and Mars; exploring the geochemical and climatological limits on biological activity in cryogenic settings; and future human exploration of Mars. Currently the Principal Investigator for the Antarctic Search for Meteorites program with active research funding from NASA's Cosmochemistry and Mars Fundamental Research programs and NSF's Office of Polar Programs.

### *Professional Positions held:*

- Associate Professor, Department of Geological Sciences, Case Western Reserve University. 9-month position, tenured since May 2004. Promoted from Assistant Professor, July 2002. Promoted from Senior Research Associate September 1998.
- Research Associate Professor / Post-doctoral Research Associate, Department of Geological Sciences, University of Tennessee, Oct. 1990 to May 1995. Non-tenure track research position.
- Adjunct Research Assistant Professor, Department of Geology and Planetary Sciences, University of Pittsburgh, 1992 to 1995. Off-campus, non-tenure track research position.
- Staff Geologist, Huntley & Huntley, Inc., Pittsburgh, 1984-1985. Oil and gas exploration and recovery.
- Director of Student Activities / Intramurals, Beloit College, 1982-84. Administrative position.

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### *Awards and Recognition:*

- Fellow of the Meteoritical Society, elected in August 2004.
- Antarctic feature at Lat. 79°54' S, Lat. 155°52'E renamed "Harvey Cirque" by the U.S. Board on Geographical Names, for service to the United States Antarctic Program, 2003.
- Asteroid 4517 renamed "Ralpharvey" in 2002 by the International Astronomical Union for contributions to the understanding of "the physical and chemical history of the solar system".
- Recognized by NASA's Early Human Testing Initiative (Johnson Space Center) for volunteer work on life support system development: 1996.
- Named Summer Faculty Fellow, NASA Johnson Space Center: 1996.
- Recognized by the American Society of Engineering Education for contributions to community education; 1996.
- Recognized by the Partners for Education Program of the Geological Society of America for contributions to K-12 education; 1996.
- Recognized by NSF's Office of Legal and Public Affairs for excellence in addressing public inquiries; 1996.
- Antarctic Service Medal from the U.S. Navy and Congress for outstanding service to the United States Antarctic Program; 1988.

### *Professional Activities:*

- Member of the Preliminary Examination Team (PET) for NASA's Stardust sample return mission, returning cometary, interplanetary and interstellar material to Earth in 2006.
- Director of the US Antarctic Search for Meteorites program since 1991.
- Vice-chair, Meteorite Working Group, 1993 to present.
- Science Review Panel Vice-chair for NASA's 2009 Mars Science Lab Lander program, 2004.
- Member, International Meteorite Nomenclature Committee, 1998-2004.
- Co-Chair, Earth and Space Sciences Grand Awards, INTEL International Science and Engineering Fair, Cleveland, Ohio, May 2003.
- Chair, Planetary Geology Division of the Geological Society of America, 2000-2001 (promoted from Vice-Chair in 2000 and Secretary / Treasurer in 1998).
- Member, Advisory Council, Cleveland Natural History Museum, Reinberger Hall of Earth and Planetary Exploration, 1996-1997.
- Reviewer, for manuscripts submitted to *Meteoritics and Planetary Science; Geochimica et Cosmochimica Acta; Journal of Geophysical Research; Science; Reviews in Geophysics, Journal of Geophysical Research, Nature, and American Mineralogist* .
- Reviewer, for proposals submitted to NASA's *Cosmochemistry, Planetary Geoscience and Ancient Martian Meteorite* programs; the National Science Foundation's Office of Polar Program's *Antarctic Geology and Geophysics, Glaciology, and Mars-Rock* programs; the Smithsonian Institution; the Natural History Museum (London); the Natural Environment Research Council (London); The Italian Antarctic Research Program (Rome) and the *Scientific Committee of Antarctic Research* (international).
- Review Panel Group Chair, NASA Mars Fundamental Research Program ; NASA Mars 2003 Lander Mission Program, 1999; Geological Soc. of America Technical Program, 2000-2001.
- Consulting Editor, for American Geophysical Institute's *Glossary of Geology (1997)* , *Annual Editions Geology 98/99* and the *World Book Encyclopedia (1997)*.
- Member, Geological Society of America, American Geophysical Union, American Association for the Advancement of Science, and the Meteoritical Society.

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### *Publications:*

24 peer reviewed articles in major journals (avg. 2 per year since Ph.D.)

54 peer-reviewed abstracts (avg. 4.5 per year since Ph.D.)

12 non-peer reviewed articles and other publications (avg. 1 per year since Ph.D.)

These publications have been cited more than 250 times (From Science Citation index).

### Peer-reviewed journal articles (in reverse chronological order):

- (2007) Haack H., Schutt J. Meibom A. and **Harvey R.** Results from the Greenland Search for Meteorites Expedition *Meteoritics and Planetary Science* **41** (in press).
- (2006) Brownlee, D.E. et al. (184 authors, including **Harvey, R.P.**) Comet 81P/Wind 2 Under a Microscope. *Science* 314, 1711-1716.
- (2006) Zolensky M. E. et al. (75 authors, including **Harvey, R.P.**) Mineralogy and Petrology of Comet 81P/Wind 2 Nucleus Samples. *Science* 314, 1735-1739.
- (2004) Corrigan C. M. and **Harvey R. P.** Unique carbonate assemblages in martian meteorite Allan Hills 84001: Implications for carbonate nucleation, growth and alteration. *Meteoritics and Planetary Science* **39** 17-30.
- (2003) **Harvey R.P.** The Origin and Significance of Antarctic Meteorites. *Chemie der Erde* **63**, 93-147.
- (2001) **Harvey R.P.**, Meibom A. and Haack, H. Meteorite Stranding Surfaces and the Greenland icesheet. *Meteoritics and Planetary Science* **36**, 807-816.
- (2000) Taylor S., Lever J. and **Harvey R.** Numbers, types and compositional distribution of an unbiased collection of cosmic spherules. *Meteoritics and Planetary Science* **35**, 651-666.
- (2000) Clifford S., Crisp D., Fisher D., Herkenhoff K., Smrekar S., Thomas P., Wynn-Williams D., Zurek R., Barnes J., Bills B., Blake E., Calvin W., Cameron J., Carr M., Christensen P., Clark B., Clow G., Cutts, J., Dahl-Jensen D., Durham W., Fanale F., Farmer J., Forget F., Goto-Azuma K., Grard R., Haberle R., Harrison W., **Harvey R.**, Howard A., Ingersoll A., James P., Kargel J., Kieffer W., Larson J., Malin M., McCleese D., Murray B., Nye J., Paige D., Platt S., Plaut J., Reeh N., Rice J., Smith D., Stoker C., Tanaka K., Mosley-Thompson E., Thorsteinsson T., Wood S., Zent A., Zuber M., Zwally H. The state and future of Mars polar science and exploration. *Icarus* **144**, 210-242.
- (1999) McSween H.Y. Jr. and **Harvey R.P.** An evaporative model for formation of carbonates in the ALH84001 martian meteorite. In *Planetary petrology and geochemistry* (Snyder, Neal and Ernst, eds.) Bellwether Publishing (for the Geological Society of America), Columbia MD 252-261. (also appeared in *International Geology Review* **40**, 774-783).

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- (1998) **Harvey R.P.**, Dunbar N.W., McIntosh W. C., Esser R. P., Nishiizumi K., Taylor S. and Caffee M.W. Meteoritic event recorded in Antarctic ice. *Geology* **26**, 607-610.
- (1998) Bradley J.P., McSween H.Y. Jr. and **Harvey R.P.** Epitaxial growth of nanophase magnetite in Martian meteorite ALH84001 : Implications for biogenic mineralization. *Meteoritics and Planetary Science* **33**, 765-774.
- (1998) Leshin L.A., McKeegan K. D., Carpenter P. K., and **Harvey R. P.** Oxygen isotopic constraints on the genesis of carbonates from martian meteorite ALH84001. *Geochimica et Cosmochimica Acta* **62**, 3-13.
- (1998) Taylor S., Lever J. and **Harvey R.** Accretion rate of cosmic spherules measured at the South Pole. *Nature* **392**. 899-903.
- (1997) Bradley J.P., **Harvey R.P.** and McSween H.Y. Jr. Non-biologic origin of “nanofossils” in Martian meteorite ALH84001. *Nature* **390**, 454-455.
- (1997) McSween H. Y. Jr. and **Harvey R. P.** Concord Plutonic Suite: Acadian gabbro-syenite intrusions in the southern Appalachians. in *The Nature of Magmatism in the Appalachian Orogen* (Sinha, A.K., Whalen, J.B. and Hogan, J.P, eds.) Geological Society of America Memoir **191**, Boulder, Colorado, 221-234.
- (1996) **Harvey R.P.** and McSween H.Y. Jr. A possible high-temperature origin for the carbonates in the martian meteorite ALH84001. *Nature*, **382**, 49-51.
- (1996) Bradley J.P., **Harvey R.P.**, and McSween H.Y. Jr. Magnetite whiskers and platelets in the ALH84001 Martian Meteorite: Evidence of vapor phase growth. *Geochimica et Cosmochimica Acta* **60**, 5149-5155.
- (1995) Nishiizumi K., Arnold J.R., Brownlee D.E., Caffee M.W. Ginkler R.C. and **Harvey R.P.**  $^{10}\text{Be}$  and  $^{26}\text{Al}$  in individual cosmic spherules from Antarctica. *Meteoritics* **30**, 728-732.
- (1994) Maurette M, Immel G., Hammer C., **Harvey R.P.**, Kurat G and Taylor S. Collection and curation of IDP's from the Greenland and Antarctic ice sheets. in *The Analysis of Interplanetary Dust*, (Zolensky, Flynn, Reitmeier and Wilson, eds.) Proc. Am. Inst. Physics **310**, 277-290.
- (1993) **Harvey R.P.**, Wadhwa M., McSween H.Y. Jr. and Crozaz G. The petrology and mineralogy of the LEW88516 shergottite. *Geochimica et Cosmochimica Acta* **57**, 4769-4783.
- (1993) McSween H.Y and **Harvey R.P.** Outgassed water on Mars: Constraints from melt inclusions in SNC meteorites. *Science* **259**, 1890-1892.
- (1992) Cassidy W.A., **Harvey R.P.**, Schutt J.W., Delisle G. and Yanai K. The meteorite collection sites of Antarctica. *Meteoritics* **27** 490-525.

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- (1992) **Harvey R.P.** and McSween H.Y. Jr. The petrogenesis of the nakhlites: Evidence from cumulate mineral zoning. *Geochimica et Cosmochimica Acta* **56**, 1655-1663.
- (1992) **Harvey R.P.** and McSween H.Y. Jr. The parent magma of the nakhlites: Clues from melt inclusions. *Earth and Planetary Science Letters* **111**, 467-482.
- (1991) Cassidy W.A. and **Harvey R.P.** Are there real differences between the modern falls and the Antarctic finds? *Geochimica et Cosmochimica Acta* **55**, 99-104.
- (1990) **Harvey R.P.** and Maurette M. The origin and significance of cosmic dust from the Walcott Neve, Antarctica. *Proceedings of the Lunar and Planetary Science Conference XXI*, 569-578.
- (1989) **Harvey R.P.** and Cassidy W.A. A statistical comparison of Antarctic finds and modern falls: Mass frequency distributions and relative abundance by type. *Meteoritics* **24**, 9-14.

### In Preparation (in expected order of appearance):

- (2007) **Harvey R.P.** and Hamilton V.A. Syrtis Major as the source region of the Nakhlite / Chassigny group of martian meteorites: Implications for the geological history of Mars. In preparation for a re-submittal.
- (2007) Leroux H, Rietmeijer F, Velbel M., Brearley A., Langenhorst F., Bridges J., Zolensky M., Jacop D., Cordier P., Bradley J., **Harvey R.**, Lee M., and Gounelle M. TEM study of thermally modified dust particles in interaction with the aerogel matrix during the Stardust capture Process. Submitted to *Meteoritics and Planetary Science* **41**.
- (2007) Velbel M.A. and **Harvey R.P.** Sulfide-metal textural relations in a glassy Stardust particle: Implications for capture-melting process and pre-capture composition. Submitted to *Meteoritics and Planetary Science* **41**.

### Other articles (Technical reports and non-peer reviewed publications)

- (1999) **Harvey R.P.** Mars Mission Questions: 3 big questions and 150 little ones. In *Mars Field Geology, Biology, and Paleontology: Summary and Recommendations* (Budden, N.A., ed.), LPI Contribution 968, Lunar and Planetary Institute, Houston, 77-80.
- (1997) Taylor S., Lever J., **Harvey R.** and Govoni J. Collecting micrometeorites from the South Pole Water Well. *CRREL Technical Report 97-1*, US Army Corps of Engineers, 42 pp.

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- (1997) **Harvey R.P.** and Schutt J.W. Meteorite Recovery and Reconnaissance in the Grosvenor Mountains, Mt. Wisting, Mt. Prestrud, and Graves Nunataks Regions (1995-1996). *US Antarctic Journal* **31**, 35-38.
- (1997) **Harvey R.P.** and Schutt J.W. Meteorite recovery and reconnaissance in the Walcott Névé region of the Transantarctic Mountains, 1997-1998. *US Antarctic Journal* **31**, 32-34.
- (1996) **Harvey R.P.** and Schutt J.W. Meteorite recovery and reconnaissance in the Allan Hills-David Glacier and Darwin Glacier regions, 1996-1997. *US Antarctic Journal* **30**, 25-28.
- (1995) **Harvey R.P.** and Schutt J.W. Results from the Antarctic Search for Meteorites project, 1993-1994 field season. *US Antarctic Journal* **29**, 47-49.
- (1994) **Harvey R.P.** and Schutt J.W. Meteorite recovery and reconnaissance in the Allan Hills-David Glacier region, 1992-1993. *US Antarctic Journal* **28**, 51.
- (1993) **Harvey R.P.** and Schutt J.W. Meteorite recovery and reconnaissance near Pecora Escarpment and surrounding regions, 1991-1992. *US Antarctic Journal* **27**, 26-27.

### Published Abstracts:

- (2007) Velbel M.A. and **Harvey R.P.** Sulfide-metal textural relations in a Glassy stardust particle. In *Lunar and Planetary Science XXXVIII* Abstract 1700, Lunar and Planetary Institute, Houston (CD-ROM).
- (2006) Ignatyev K., Huwig K., **Harvey R. P.**, Ishii H., Bradley J., Luening K., Brennan S., Pianetta P. First X-ray Fluorescence MicroCT Results from Micrometeorites at SSRL. *UCRL Proceedings 224033*, 4 pp.
- (2006) Botta O., Martins Z, Emmenegger C., Dworkin J. Glavin D, **Harvey R**, Zenobi R., Bada J and Ehrenfreund P. Amino Acids and Polycyclic Aromatic Hydrocarbons in meteorites and ice samples from LaPaz Icefields, Antarctica. In *Meteoritics and Planetary Science* **41** (supplement), p. A26.
- (2006) Huwig, K.A. and **Harvey R.P.** FIB-TEM and SIMS of aeolian and glacial Antarctic micrometeorites- Evidence for the origin of "COPS". In *Meteoritics and Planetary Science* **41** (supplement), p. A82.
- (2006) Kennedy J.D. and **Harvey R.P.** The Antarctic Ferrar Dolerite and the petrogenesis of the Martian Shergottites. In *Meteoritics and Planetary Science* **41** (supplement), p. A94.
- (2006) Righter K, **Harvey R.P.**, Schutt J., Satterwhite C., McBride K.M., McCoy T.J. and Welzenbach L. The great diversity of planetary materials returned from the Queen Alexandra Range, Antarctica. In *Meteoritics and Planetary Science* **41** (supplement), p.

- A148.
- (2006) Zolensky et al (and a cast of thousands) Mineralogy and Petrology of Comet Wild2 Nucleus Samples- Final results of the preliminary examination team. In *Meteoritics and Planetary Science* **41** (supplement), p. A167.
- (2006) **Harvey R.P.**, Bish D.L., Socki R. and Tonui E. Cryogenic Evaporite Formation at Lewis Cliff, Antarctica: A Mars Analog Study. In *Lunar and Planetary Science XXXVII* Abstract 1044, Lunar and Planetary Institute, Houston (CD-ROM).
- (2006) Zolensky et al (and a cast of thousands) Mineralogy and Petrology of Comet Wild2 Nucleus Samples. In *Lunar and Planetary Science XXXVII* Abstract 1203, Lunar and Planetary Institute, Houston (CD-ROM).
- (2006) Botta O., Martins Z, Emmenegger C., Dworkin J. Glavin D, **Harvey R.**, Zenobi R., Bada J and Ehrenfreund P. Reassessing the organic content of Antarctic ice and Meteorites. In *Lunar and Planetary Science XXXVII* Abstract 1464, Lunar and Planetary Institute, Houston (CD-ROM).
- (2006) Kennedy J.D. and **Harvey R.P.** Petrology and mineral chemistry of the Antarctic Ferrar Dolerite: Implications for Martian Meteorites. In *Lunar and Planetary Science XXXVII* Abstract 1689, Lunar and Planetary Institute, Houston (CD-ROM).
- (2006) Huwig, K.A. and **Harvey R.P.** A comparison of “Identical” Antarctic micrometeorites from glacial ice and aeolian sediments. In *Lunar and Planetary Science XXXVII* Abstract 2403, Lunar and Planetary Institute, Houston (CD-ROM).
- (2005) Fries M., Cody G., Fogel M, **Harvey R.**, Jull A., Nittler L., Rost D., Steele A., Toporski J., Vicenzi E. and Wainwright N. Contamination in meteorites stored since 1977- Preliminary results of Antarctic Meteorite Contamination Study (AMCS). in *Meteoritics and Planetary Science* **40** (supplement), p. A51.
- (2005) **Harvey R.P.** and Hamilton V. E. Syrtis Major as the source region of the Nakhlite/Chassigny martian meteorites. in *Meteoritics and Planetary Science* **40** (supplement), p. A64.
- (2005) Kennedy J.D. and **Harvey R.P.** Geochemistry, mineralogy and weathering of the Antarctic Ferrar Dolerite with implications for martian meteorites and surface processes. in *Meteoritics and Planetary Science* **40** (supplement), p. A80.
- (2005) Huwig, K.A. and **Harvey R.P.** Geochemical, textural and mineralogical analysis of two fgMM's from Antarctic aeolian traps. in *Meteoritics and Planetary Science* **40** (supplement), p. A70.
- (2005) **Harvey R.P.** and Hamilton V. E. Syrtis Major as the source region of the Nakhlite/Chassigny group of martian meteorites: Implications for the geological history

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- fo Mars. In *Lunar and Planetary Science XXXVI* Abstract 1019, Lunar and Planetary Institute, Houston (CD-ROM).
- (2005) McAdam A.C., Leshin L.A., Sharp T.G., **Harvey R.P.** and Hoffman E.J. Investigation of weathering products of martian meteorite analog materials and implications for the formation of martian surface fines. In *Lunar and Planetary Science XXXVI* Abstract 2041, Lunar and Planetary Institute, Houston (CD-ROM).
- (2004) Corrigan C.M. and **Harvey R.P.** Implications for the abundance of water on Early Mars as evidenced by the presence of secondary minerals in Martian Meteorite Allan Hills 84001. In *Second Conference on Early Mars* Abstract 8049, Lunar and Planetary Institute, Houston (CD-ROM).
- (2004) Corrigan C.M. Wadhwa M and **Harvey R.P.** Rare Earth Element measurements of multi-generational(?) carbonate in martian meteorite Allan Hills 84001. In *Lunar and Planetary Science XXXIII* Abstract 1611, Lunar and Planetary Institute, Houston (CD-ROM).
- (2004) Huwig K.A. and **Harvey R.P.** Olivine textures and compositions in BIT-58 ablation spherule debris. In *Lunar and Planetary Science XXXIII* Abstract 1941, Lunar and Planetary Institute, Houston (CD-ROM).
- (2003) **Harvey R.P.** The Broken Belt: Meteorite concentration on stranded ice. In *Lunar and Planetary Science XXXIV* Abstract 1194, Lunar and Planetary Institute, Houston (CD-ROM).
- (2003) Corrigan C.M. and **Harvey R.P.** Evidence for a second generation of magnesite in martian meteorite Allan Hills 84001. In *Lunar and Planetary Science XXXIV* Abstract 1255, Lunar and Planetary Institute, Houston (CD-ROM).
- (2003) Corrigan C. M., Niles, P. B., Leshin, L. A., **Harvey, R. P.**, Guan, Y., McKeegan, K. D. (2003) Oxygen isotopic compositions of unique carbonates in martian meteorite Allan Hills 84001. *Meteorit. Planet. Sci.* **38** (Suppl.) (in press).
- (2003) Corrigan, C. M., Vicenzi, E. P., **Harvey, R. P.**, and McCoy, T. J. (2003) Chemical imaging of carbonates in martian meteorite ALH 84001 using Time of Flight Secondary Ion Mass Spectrometry. *Meteorit. Planet. Sci.* **38** (Suppl.) (in press).
- (2003) **Harvey R.P.** and Boyd H. A search for impact debris in the Pliocene age Sirius Group, Transantarctic Mountains. In *Lunar and Planetary Science XXXIV* Abstract 1726, Lunar and Planetary Institute, Houston (CD-ROM).
- (2003) Delin K.A., **Harvey R.P.**, Chabot N.A., Jackson S.P, Adams M., Johnson D.W. and Britton J.T. Sensor Web in Antarctica: Developing an intelligent, autonomous platform for locating biological flourishes in cryogenic environments. In *Lunar and Planetary Science XXXIV* Abstract 1929, Lunar and Planetary Institute, Houston (CD-ROM).



- (2002) Goodrich, C.A. and **Harvey, R.P.** The parent magmas of lherzolitic shergottites ALH 77005 and LEW 88516: A reevaluation from magmatic inclusions in olivine and chromite. *Meteoritics and Planetary Science* **37**, A54.
- (2002) McAdam A.M., Leshin L.A. and **Harvey R.P.** Are the SNC meteorites really from Mars? Martian Dust could answer the question. *Meteoritics and Planetary Science* **37**, A96.
- (2002) Corrigan C.M. and **Harvey R.P.** Unique carbonates in martian meteorite Allan Hills 84001. In *Lunar and Planetary Science XXXIII* Abstract 1051, Lunar and Planetary Institute, Houston (CD-ROM).
- (2001) **Harvey R. P.** The Ferrar Dolerite: An Antarctic Analog for Martian Basaltic Lithologies and Weathering Processes. In *Abstracts for the Field Trip and Workshop on the Martian Highlands and Mojave Desert Analogs (LPI Contrib. No. 1101)*, pp. 25-26.
- (2001) Genge M. J. , Bradley J., Engrand C., Gounelle M. , **Harvey R. P.** and Grady M. M.. The petrology of fine-grained micrometeorites: Evidence for the diversity of primitive asteroids. In *Lunar and Planetary Science XXXII*, Abstract 1546, Lunar and Planetary Institute, Houston (CD-ROM).
- (2001) **Harvey R.P.** Meibom A. Haack H. Possible meteorite stranding surfaces on the Greenland ice sheet. In *Lunar and Planetary Science XXXII*, Abstract 1287, Lunar and Planetary Institute, Houston (CD-ROM).
- (2000) Corrigan C.M., **Harvey R.P.** and Bradley J. A sodium-bearing pyroxene phase in ALH 84001. In *Lunar and Planetary Science XXXI*, Abstract 1762, Lunar and Planetary Institute, Houston (CD-ROM).
- (1999) Corrigan C.M., and **Harvey R.P.** A sodium-bearing pyroxene phase in ALH 84001. In *Abstracts with Programs - Geological Society of America* 31, 45.
- (1998) **Harvey R.P.** Formation of carbonates in ALH84001 by impact metasomatism: cooking with gas. In *Workshop on Martian Meteorites*, LPI Contribution 956, Lunar and Planetary Institute, 20-21.
- (1998) **Harvey R.P.** and Cassidy W.A. Recovering More Antarctic Martian Meteorites: Answers to common questions. In *Workshop on Martian Meteorites*, LPI Contribution 956, Lunar and Planetary Institute, 22-23.
- (1998) **Harvey R.P.** and Chokel C. Pathfinder Andesite: the product of a lherzolitic melt. In *Abstracts with Programs - Geological Society of America* 30, 403.

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- (1998) Bradley J. P., McSween H.Y. Jr and **Harvey R.P.** (1998) Mechanisms of formation of magnetite in martian meteorite ALH84001. In *Lunar and Planetary Science XXIX*, Abstract 1757, Lunar and Planetary Institute, Houston (CD-ROM).
- (1998) **Harvey R.P.** and Schutt J. W. Deflation and meteorite concentrations in the Walcott Névé region, Transantarctic Mountains, Antarctica. In *Lunar and Planetary Science XXIX*, Abstract 1816, Lunar and Planetary Institute, Houston (CD-ROM).
- (1998) McSween H.Y. Jr. and **Harvey R.P.** Brine evaporation: An alternative model for the formation of carbonates in ALH84001. *Meteoritics and Planetary Science* **33**, A103.
- (1997) Bradley J.P., **Harvey R.P.** and McSween H.Y. Jr. Magnetite whiskers and platelets in the ALH84001 Martian Meteorite: Evidence of vapor phase growth. *Abstracts Lunar and Planetary Science Conference* **28**, 147-148
- (1997) Leshin L.A., McKeegan K.D. and **Harvey R.P.** Oxygen isotopic constraints on the genesis of carbonates from martian meteorite ALH84001. *Abstracts Lunar and Planetary Science Conference* **28**, 805-806.
- (1996) **Harvey R.P.** Antarctic meteorites: new paradigms for planetary science. *American Association for the Advancement of Science* , A-53.
- (1996) **Harvey R.P.**, McCoy T.J. and Leshin L.A. Shergottite QUE 94201: texture, mineral compositions and comparison with other basaltic shergottites. *Abstracts Lunar and Planetary Science Conference* **27**, 497-498.
- (1996) **Harvey R.P.**, Taylor S. and Zolensky M.E. Preliminary characterization of South Pole Water Well micrometeorites. *Meteoritics* **31**, A58.
- (1996) Lever J.H., Taylor S. and **Harvey R.** A collector to retrieve micrometeorite from the South Pole Water Well. *Abstracts Lunar and Planetary Science Conference* **27**, 747-748.
- (1996) Leshin L. A. , **Harvey R.P.**, McCoy T.J. and McKeegan K.D. Water in apatite from shergottite QUE 94201: Abundance and D/H. *Meteoritics* **31**, A79-80.
- (1996) Taylor S., Lever J. and **Harvey R.** Terrestrial flux rates of micrometeorites determined from the South Pole Water Well . *Meteoritics* **31**, A140.
- (1996) Taylor S., Lever J. and **Harvey R.**(1996) A new source of micrometeorites: the South Pole Water Well . *Abstracts Lunar and Planetary Science Conference* **27**, 1319-1320.
- (1995) **Harvey R.P.** Moving Targets: The effect of supply, wind movement, and search losses on Antarctic meteorite size distributions. In *Workshop on Meteorites from Cold and Hot Deserts* (Schultz L., Annexstad J.O. and Zolensky M.E., eds.) Lunar and Planetary Institute Technical Report 95-02, 34-36.

- (1995) **Harvey R.P.** Current research activities of ANSMET: 1. Recent studies in the Walcott Névé region; 2. Planned Future activities. In *Workshop on Meteorites from Cold and Hot Deserts*(Schultz L., Annexstad J.O. and Zolensky M.E., eds.) Lunar and Planetary Institute Technical Report 95-02, 33-34.
- (1995) **Harvey R.P.** and McSween H.Y. Jr. Carbonates in the Martian orthopyroxenite ALH84001: Evidence of formation during impact-driven metasomatism. *Abstracts Lunar and Planetary Science Conference* **26**, 555-556.
- (1995) **Harvey R.P.**, Dunbar N.W., McIntosh W.C., Esser R.P. and Taylor S. A meteoritic event layer in Antarctic ice. *Meteoritics* **30**, 517-518.
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