

# CURRICULUM VITAE

HAROLD C. CONNOLLY JR.

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## CONTACT INFORMATION

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## CHRONOLOGY OF EDUCATION

- 1996 Ph.D. in Geological Science, Rutgers University.  
Petrology - Geochemistry - Meteoritics - Cosmochemistry  
Thesis advisor: Prof. Roger H. Hewins
- 1991 M.S. in Geological Sciences, Rutgers University.  
Thesis advisor: Prof. Roger H. Hewins
- 1988 B.A. in Geological Sciences, Rutgers University.  
Honor thesis advisor (Chondrule formation): Prof. Roger H. Hewins  
Independent Research advisor (Devonian invertebrates): Prof. G. McGhee

## CHRONOLOGY OF PROFESSIONAL EXPERIENCE

### *CITY UNIVERSITY OF NEW YORK*

- 2005 Awarded tenure at the City University of New York
- 2004- Associate Professor (promotion before tenure) - Earth and Planetary Sciences, Department of Physical Sciences, Kingsborough Community College of the City University of New York, Brooklyn, N.Y.
- 2003- Earth and Environmental Sciences Doctoral Faculty, City University of New York.
- 2001-2004 Assistant Professor - Earth and Planetary Sciences, Department of Physical Sciences, Kingsborough Community College of the City University of New York, Brooklyn, N.Y.

### *OTHER APPOINTMENTS AND POSITIONS*

- 2006- Adjunct Associate Professor of Planetary Science, Lunar and Planetary Laboratory, University of Arizona.
- 2001- Research Associate, American Museum of Natural History, New York, N.Y.
- 2001- Graduate Faculty, Department of Geological Sciences, Rutgers University.
- 1998-2001 Research Scientist, Division of Geological and Planetary Sciences, California Institute of Technology.
- 1996-1998 Postdoctoral Scholar in Geochemistry, California Institute of Technology.
- 1993-1995 TEM analyst, EMSL Piscataway, N.J.
- 1989-1996 Graduate Research Assistant, Department of Geological Sciences, Rutgers University.
- 1988-1989 Field Engineer, Melick and Tully, Inc., Geotechnical Engineers, S. Brook, N.J.

## CHRONOLOGY OF TEACHING EXPERIENCE

- 2009- Open Doors Learning Community, linking Introduction to Astronomy with first-semester English, the overall course entitled *Composing Astronomy*.
- 2008- Earth System Science I (EES 716), Graduate Center, CUNY
- 2002- Introduction to Astronomy (EPS 35; resurrected the course in Fall 2002 and designed a lab for this course that began in Fall, 2003).
- 2001- Introduction to Earth Science (EPS 38; completely revised the curriculum for the lecture and accompanying laboratory for the entire program).

### CHRONOLOGY OF MENTORING

#### *GRADUATE LEVEL*

- 2007- Co-advisor for Devin Schrader, Ph.D. student at the Lunar and Planetary Laboratory.
- 2007- Committee member for Eve Berger, Ph.D. student at the Lunar and Planetary Laboratory.
- 2008- Committee member for Kathryn Gardner, Ph.D. student at the Lunar and Planetary Laboratory.
- 2008- Ph.D. qualification examiner for all candidates in Earth and Environmental Sciences, The Graduate Center of the City University of New York.

#### *UNDERGRADUATE LEVEL*

- 2006- REU advisor to Devin Schrader, American Museum of Natural History and the City University of New York (summer program).
- 2008- REU co-advisor to Jacqui Beard, American Museum of Natural History and the City University of New York (summer program).
- 2009- REU advisor to Stuart A. Sweeney Smith, American Museum of Natural History and the City University of New York (summer program).

### CHRONOLOGY OF AWARDS AND FELLOWSHIPS

- 2007-2008 Fellowship (sabbatical) leave from CUNY.
- 2006 Asteroid **(6761) Haroldconnolly** renamed from Asteroid 1981 EV19
- 1999 Antarctic Service Medal, US Congress and Department of Navy.
- 1991-1994 Graduate Student Researchers Program-NASA.
- 1988 Honors in Geological Sciences.
- 1987 Helgi Johnson Award for excellent in field geology.

### CHRONOLOGY OF GRANTS AWARDED

- 2009 **Co-I:** Research Experience for Undergraduates, the National Science Foundation, at the American Museum of Natural History in collaboration with the City University of New York. Mentor to Stuart A. Sweeney Smith, an undergraduate at the Carelton College, during the summer of 2009.
- 2008 **PI:** Evolution of primitive planetary materials in the protoplanetary disk. Awarded from the NASA Cosmochemistry program. Awarded **\$50,000.00** for one year.
- 2008 **PI:** Constraining the timing of pre-accretion events in the protoplanetary disk. Awarded from the NASA Origins of Solar Systems program. Awarded **\$156,000.00** over three years.
- 2007 **PI:** The complex nature of a CAI from Allende. Awarded from the PSC-CUNY Foundation. Awarded **\$3990.00** for one year.
- 2006 **Co-I:** Acquisition of an electron microprobe for use at a regional facility at Rutgers University. Awarded from the NASA Cosmochemistry program. Awarded **\$475,000.**
- 2006 **PI:** Constraints on Solar System origins from experimental and petrographic investigations of primitive planetary materials. Awarded from the NASA Cosmochemistry program. Awarded **\$166,000** over three years.
- 2006 **Co-I:** Scanning electron microscope studies of solar system materials. Awarded from the NASA Cosmochemistry Program. Awarded **\$214,000.**
- 2006 **Co-I:** Research Experience for Undergraduates, the National Science Foundation, at the American Museum of Natural History in collaboration with the City University of New York. Awarded from the National Science Foundation. Mentor to Devin Schrader, an undergraduate at the University of Arizona, during the summer of 2006; now my Ph.D. student at the University of Arizona.
- 2005 **Co-I:** Petrologic-geochemical studies of STARDUST commentary materials. Awarded from the NASA Cosmochemistry program. Awarded **\$15,000** for one year.

- 2005 **PI:** Towards an Origin of Chondrules: Kinetics of Reactions. Awarded from the PSC-CUNY Foundation. Awarded **\$3,840** for one year.
- 2004 **PI:** On the nature and origins of type II chondrules from CR chondrites. Awarded from the PSC-CUNY Foundation. Awarded **\$5,640.00** for one year.
- 2003 **PI:** On the origins of Fe, Ni-metal in enstatite chondrites. Awarded from the PSC-CUNY Foundation. Awarded **\$4,300.00** for one year.
- 2001 **Co-I:** X-ray radiographic and tomographic techniques for maximizing the information extracted from STARDUST and small particle data. Awarded from the NASA Cosmochemistry Program.

#### **CHRONOLOGY OF PENDING GRANTS**

- 2009 **Co-I:** OSIRIS Rex (Origins Spectral Interpretation Resource Identification Security Regolith Explorer) to be submitted to NASA's New Frontiers Program by 31 July 2009.
- 2009 **PI:** Evolution of chondrule compositions from ordinary chondrites and the evolution of planetary materials in the protoplanetary disk. To be submitted to NASA's Cosmochemistry program as a 3-year award by 15 May 2009.

#### **CHRONOLOGY OF PROFESSIONAL ACTIVITIES AND SERVICE**

- 2009 Research Education for Undergraduates (NSF funded) advisor to Stuart A. Sweeney Smith.
- 2008- *OSIRIS Rex* Science Team (Origins Spectral Interpretation Resource Identification Security); sample return mission and characterization of an asteroid to be submitted to New Frontiers Program.
- 2009- Council member of the international Meteoritical Society (elected position).
- 2008 Research Education for Undergraduates (NSF funded) co-advisor to Jacqui Beard.
- 2007-2008 Awarded sabbatical leave, one year.
- 2007 Gold team review, *OSIRIS*.
- 2007 Chair of the Scientific Program Committee, 70<sup>th</sup> Annual Meteoritical Society Meeting, Tucson, AZ.
- 2006 Research Education for Undergraduates (NSF funded) advisor to Devin L. Schrader.
- 2006- Member of the Advisory Board, Southwest Meteorite Center.
- 2006 April 2006 Panel Member for ECO Festival 2006, Kingsborough Community College.
- 2006 Appointed to the review panel for President's Faculty Innovation Award, Kingsborough.
- 2006- Elected representative to the College Council, Kingsborough Community College.
- 2006- Appointed member of the Academic Integrity Committee, Kingsborough Community College.
- 2006- Appointed member of the Strategic Planning Committee, Kingsborough Community College.
- 2006- Appointed member of the General Education Committee, Kingsborough Community College.
- 2005-2006 Appointed Chair of the Pellas-Ryder Student Award Committee, a joint committee of the Planetary Science Divisions of the Geological Society of America and the Meteoritical Society.
- 2005-2008 Editor of the Meteoritical Bulletin (<http://www.meteoriticalsociety.org>).
- 2005-2006 Appointed member of the Meteoritical Society's Nomenclature Committee – Associate Editor for Oman.
- 2005-2007 Meteorite Working Group.
- 2005- Program committee for the Lunar and Planetary Science Conference.
- 2005- Elected to College Council, which is the governing body of Kingsborough Community College.
- 2004 Elected to the Faculty Search Committee for President of Kingsborough Community College.
- 2003-2006 Appointed member of the Pellas-Ryder Student Award Committee. The committee represents both the Meteoritical Society and the Geological Society of America.
- 2003-2006 Appointed member of the Publications Committee of the Meteoritical Society.

- 2003 Scientific organization committee for Chondrites and the Protoplanetary Disk.  
2003- Advisor GLABA/AQUA Club, Kingsborough Community College.  
2002 Co-advisor GLABA Club, Kingsborough Community College.  
2001 Advisory Committee for the new Hall of Meteorites, American Museum of Natural History.  
2001-2002 Advisory Board - Women's Center, Kingsborough Community College.  
2001 Editorial Board for *Meteorites and the Early Solar System II*.  
2001 Panel member- NASA Cosmochemistry Review Panel (Proposal funding panel).  
1999-2000 Program committee for the Lunar and Planetary Science Conference.  
1998 Award committee, GSA Stephen E. Dworkin Student Award (LPSC).  
1997-2001 Visitor, Center for Star Formation Studies, NASA-Ames.  
1994-1995 Member of the Antarctic Search for Meteorites (ANSMET) expedition.  
1991-1994 President of the Graduate Student Association of Rutgers University.

#### **PROFESSIONAL SOCIETY MEMBERSHIPS**

- American Geophysical Union 1990-  
American Astronomical Society and its Division of Planetary Sciences 2001-  
Geochemical Society 2009-  
Geological Society of America, its Planetary Sciences Division and Geosciences Education Division 2001-  
Meteoritical Society 1989-  
Membership to the International Astronomical Union, *pending*.

#### **LANGUAGES**

- English – Fluent  
French – Some fluency  
Irish – Some fluency  
Tibetan – Currently, learning spoken and written (both modern and classical)

#### **CHRONOLOGY OF PUBLISHED BOOKS**

- (1) A Lab Manual for Introduction to Earth Science **Harold C. Connolly Jr.**, Cyrena A. Goodrich, and Michael K. Weisberg. (2005) Kendall/Hunt Publishing Company, Dubuque, Iowa.

#### **CHRONOLOGY OF EDITORSHIP OF PROFESSIONAL PUBLICATIONS**

- (4) The Meteoritical Bulletin, No. 93. **Harold C. Connolly Jr.**, Jutta Zipfel, Luigi Folco, Caroline Smith, Gretchen K. Benedix, Kevin Righter, Akira Yamaguchi, and Hassnaa Chennaoui-Aoudjehane. (2008) *Meteorit. Planet. Sci.* **43**, 571-632.  
(3) The Meteoritical Bulletin, No. 92. **Harold C. Connolly Jr.**, Jutta Zipfel, Luigi Folco, Caroline Smith, Gretchen K. Benedix, Kevin Righter, Akira Yamaguchi, and Hassnaa Chennaoui-Aoudjehane. (2007) *Meteorit. Planet. Sci.* **42**, 413-466.  
(2) The Meteoritical Bulletin, No. 91. **Harold C. Connolly Jr.**, Jutta Zipfel, Luigi Folco, Caroline Smith, Rhian H. Jones, Gretchen K. Benedix, Kevin Righter, Akira Yamaguchi, Hassnaa Chennaoui-Aoudjehane and, Jeffery N. Grossman. (2007) *Meteorit. Planet. Sci.* **42**, 413-466.  
(1) The Meteoritical Bulletin, No. 90. **Harold C. Connolly Jr.** (Editor), Jutta Zipfel, Jeffery N. Grossman, Luigi Folco, Caroline Smith, Rhian H. Jones, Kevin Righter, Michael Zolensky, Sara S. Russell, Gretchen K. Benedix, Akira Yamaguchi, and Barbara A. Cohen. (2006) *Meteorit. Planet. Sci.* **41**, 1383-1418.

#### **CHRONOLOGY OF INVITED PUBLICATIONS**

- (17) Thermal processing in protoplanetary nebulae. Daniel Api, Dante S. Lauretta, and **Harold C. Connolly Jr.** (2009) In *Protoplanetary Dust*, Cambridge University Press; In press (**Refereed**).  
(16) On the nature, origins and significance of chondrules. **Harold C. Connolly Jr.** and Dante S. Lauretta. (2008) In *Terrestrial Planets: Evolution Through Time*. Physical Research Laboratory, Ahmedabad, India.  
(15) A review of *The history of meteoritics and key meteorite collections: Fireballs, falls and finds*. **Harold C. Connolly Jr.** (2007) *Meteoritic. Planet. Sci.* **42**.

- (14) Transient heating in the protoplanetary disk, **Harold C. Connolly Jr.**, Steve J. Desch, Rhian H. Jones, and Richard D. Ash. (2006) In *Meteorites and the Early Solar System II*, University of Arizona Press (**Refereed**).
- (13) Chemical Processes in CAIs: A mostly CMAS view of melting and crystallization John R. Beckett, **Harold C. Connolly Jr.** and Denton S. Ebel. (2006) In *Meteorites and the Early Solar System II*, University of Arizona Press (**Refereed**).
- (12) Refractory inclusions and chondrules: Insights into a protoplanetary disk and planet formation. (2005) **Harold C. Connolly Jr.** In *Proceeding of Chondrites and the Protoplanetary Disk*, Astronomical Society of the Pacific, pp. 215-223 (**Refereed**).
- (11) Experimental constraints on chondrule formation. Roger H. Hewins, **Harold C. Connolly Jr.**, Gary E. Lofgren, and Guy Libourel. (2005) In *Proceeding of Chondrites and the Protoplanetary Disk*, Astronomical Society of the Pacific, pp. 286-313 (**Refereed**).
- (10) A review of *A Color Atlas of Meteorites in Thin Section* **Harold C. Connolly Jr.** (2005) *Meteorit. Planet. Sci.* **40**, 939-940.
- (9) The Meteoritical Bulletin, No. 89. S. S. Russell, M. Zolensky, K. Righter, L. Foloco, R. H. Jones, **Harold C. Connolly Jr.**, M. M. Grady, and J. N. Grossman. (2005) *Meteorit. Planet. Sci.* **40**, A201-263.
- (8) From stars to dust: Looking into a circumstellar disk through chondritic meteorites. **Harold C. Connolly Jr.** (2005) *Science* **307**, 75-76.
- (7) On the origin of the “kleine Kügelchen” called chondrules. **Harold C. Connolly Jr.** and S. J. Desch (2004) *Chemie der Erde* **64**, 95-184 (**Refereed**).
- (6) Nier Prize Citation for Steven J. Desch. **Harold C. Connolly Jr.** (2003) *Meteorit. Planet. Sci.* **38**, *Supple.* A7.
- (5) A review of *Brother Astronomer: The Adventures of a Vatican Scientist* **Harold C. Connolly Jr.** (2000) *Meteorit. Planet. Sci.* **35**, 884.
- (4) A review of *Planetary Materials*, Reviews in Mineralogy Volume 36. **Harold C. Connolly Jr.** (1999). *EOS* **80**, 222.
- (3) The Paul Pellas Symposium. **Harold C. Connolly Jr.** (1998) *Meteorit. Planetat. Sci.* **33**, 956-957.
- (2) Formation of chondrules and CAIs: Theory versus observations. Rhian J. Jones, Typhoon Lee, **Harold C. Connolly Jr.**, Stanley G. Love, and Hsien Shang. (1999) In *Protostars and Planets IV*, 2001 (**Refereed**).
- (1) The formation of chondrules: Petrologic tests of the shock wave model. **Harold C. Connolly Jr.** and Stanley G. Love (1998) *Science* **280**, 62-67 (**Refereed**).

#### CHRONOLOGY OF INVITED TALKS

- (19) On the nature, origins and significance of chondrules. Terrestrial Planets: Evolution through time. Physics Research Laboratory, Navrangpura, Ahmedabad, India. January 2008.
- (18) On understanding the formation of chondrules and CAIs, Gordon Research Conference, Origin of Solar Systems, July 2007.
- (17) On understanding the formation of chondrules and CAIs, University of Toronto, November 2006.
- (16) On understanding the formation of chondrules and CAIs, Natural History Museum, June 2006.
- (15) On understanding the formation of chondrules and CAIs, University of Maryland April 2006.
- (14) On John Wood and the importance of chondrites in recording solar system formation, Harvard University May 2005.
- (13) Refractory inclusions and chondrules: Insights into a protoplanetary disk and planet formation. Kaua’i, Hawai’i, November 2005.
- (12) On chondritic meteorite components: Chondrules and CAIs. Department of Geological Sciences, Arizona State University, February 2004.
- (11) On chondritic meteorite components: Chondrules and CAIs. The Lunar and Planetary Laboratory at the University of Arizona, February 2004.
- (10) Citation for Dr. Steve J. Desch, winner of the 2003 Meteoritical Society Nier Prize. Citation presented at the 66<sup>th</sup> annual meeting of the Meteoritical Society in Munster, Germany.
- (9) On the formation of chondrules, Lawrence Livermore National Laboratory February 2003.
- (8) On the formation of meteoritic chondrules and CAIs, UC Berkeley, joint Astronomy and EPS seminar, February 2003.
- (7) On the origins of planetary materials: Fe-Ni metal Georgia State, February 2002.

- (6) On a recipe for making chondrules, California Institute of Technology, March 2001.
- (5) What are Chondrules/CAIs and Why Should Astrophysicists Care? Institute for Advanced Studies, May 2001.
- (4) Distinguish lecturer for the Cultural and Life Program, Furman University, South Carolina. Talk entitled: From Antarctica to the formation of our solar system: Meteorites, February 2000.
- (3) On the formation of type B CAI from minor element concentrations in spinels. UCLA, December 1999.
- (2) On the formation of chondrules and type B CAI. Center for Star Formation Studies, NASA-Ames, April 1998.
- (1) On the thermal histories of chondrules. NASA-Ames, November 1996.

#### **CHRONOLOGY OF REFEREED AND UNSOLICITED PUBLICATIONS IN PREPARATION OR REVISION**

- (5) Sulfide-rich metallic impact melts from the H-chondrite parent body. Devin L. Schrader, Dante S. Lauretta, Harold C. Connolly Jr., Yulia Goreva, Dolores Hill, Eve Berger, and Ken Domanik. (2009) In preparation for *Meteorit. Planet. Sci.*
- (4) Inti didn't form in the X-wind (and neither did most CAIs and chondrules) M.A. Morris, S. J. Desch, and H. C. Connolly Jr. (2009) In preparation for *Meteorit. Planet. Sci.*
- (3) The petrography and geochemistry of an Allende type B CAI: An issue of remelting? **Harold C. Connolly Jr.**, Anat Shahar, Edward D. Young, Denton S. Ebel, Michael K. Weisberg, John R. Beckett, and Julie M. Paque. (2009) In preparation for *Meteoritic Planet. Sci.*
- (2) On the nature and origins of type-II chondrules in CR2 chondrites. **Harold C. Connolly Jr.**, Gary R. Huss, Michael K. Weisberg, K. Nagashima, Richard D. Ash, Denton S. Ebel, Devin L. Schrader, and Dante S. Lauretta. (2009) In preparation for *Geochim. Cosmochim. Acta.*
- (1) On understanding the cooling rates of type-II chondrules: Myths versus Data. **Harold C. Connolly Jr.**, Rhian H. Jones, and Gary E. Lofgren. (2009) In preparation for *Meteoritic. Planet. Sci.*

#### **CHRONOLOGY OF REFEREED AND UNSOLICITED PUBLICATIONS SUBMITTED**

- (1) Compositional evolution of the protoplanetary disk: Oxygen isotopes of CR2 chondrite chondrules. **Harold C. Connolly Jr.** and Gary R. Huss. (2009) Submitted to *Meteorit. Planet. Sci.*

#### **CHRONOLOGY OF REFEREED AND UNSOLICITED PUBLICATIONS**

- (17) Characterization of opaque phases in type-II chondrules from CR2 chondrites: Evidence for low and high temperature history. Devin L. Schrader, **Harold C. Connolly Jr.**, and Dante S. Lauretta (2008) *Geochim. Cosmochim. Acta.* **72**, 6124-6140.
- (15) Ancient asteroids enriched in refractory materials. J.M. Sunshine, **H.C. Connolly Jr.**, T. J. McCoy, S. J. Bus, and L. LaCroix. (2008) *Science* **320**, 514-517.
- (14) Petrology and origin of amoeboid olivine aggregates in CR chondrites. Michael K. Weisberg, **Harold C. Connolly Jr.**, and Denton S. Ebel. (2004) *Meteorit. Planet. Sci.* **39**.
- (13) An interstellar origin for the Beryllium 10 in CAIs. S. J. Desch, **Harold C. Connolly Jr.**, and G. Srinivasan. (2004) *Ap. J.* **602** 528-542.
- (12) On Type B CAI Formation: Experimental Constraints on fO<sub>2</sub> Variations in Spinel Minor Element Partitioning and Re-equilibration Effects. **Harold. C. Connolly Jr.** and D. S. Burnett. (2003) *Geochim. Cosmochim. Acta*, **67**, 4429-4434.
- (11) The petrogenesis of type B Ca, Al-rich inclusions: The spinal perspective. **Harold C. Connolly Jr.**, D. S. Burnett, and Kevin D. McKeegan (2003) *Meteorit. Planet. Sci.* **38**, 197-224.
- (10) A model for the thermal processing of particles in solar nebula shocks: Application to cooling rates of chondrules. S. J. Desch and **Harold C. Connolly Jr.** (2002). *Meteorit. Planet. Sci.* **37**, 183-207.
- (9) On the formation of Fe-Ni metal in CR2 meteorites. **Harold C. Connolly Jr.**, Gary R. Huss, and G. J. Wasserburg. (2001) *Geochim. Cosmochim. Acta*, **65**, 4567-4588.
- (8) Comment on "On the lower limit of chondrule cooling rates: The significance of iron loss in dynamic crystallization experiments" by S. Weinbruch, et al. Juile M. Paque, **Harold C. Connolly Jr.** and Gary E. Lofgren (1999) *Meteorit. Planet. Sci.* **34**, 671-675.
- (7) A study of the minor element concentrations in spinels from type B CAIs: An investigation into potential formation conditions of CAIs. **Harold C. Connolly Jr.** and D. S. Burnett (1999) *Meteorit. Planet. Sci.* **34**, 829-848.

- (6) The flash melting of chondrules: An experimental investigation into the melting history and physical nature of chondrule precursors. **Harold C. Connolly Jr.**, Brian D. Jones, and Roger H. Hewins. (1998) *Geochim. Cosmochim. Acta* **62**, 2725-2735.
- (5) Peak temperatures of flash-melted chondrules. Roger H. Hewins and **Harold C. Connolly Jr.** (1996) **Chondrules and the Protoplanetary Disk**, Cambridge University Press, pp.197-204.
- (4) Constraints placed on the nature of chondrule precursors: A review of experimental evidence. **Harold C. Connolly Jr.** and Roger H. Hewins. (1996) **Chondrules and the Protoplanetary Disk**, Cambridge University Press, pp. 129-136.
- (3) Chondrules as products of dust collisions with totally molten droplets within a dust-rich nebular environment: An experimental investigation. **Harold C. Connolly Jr.** and Roger H. Hewins. (1995) *Geochim. Cosmochim. Acta* **59**, 3231-3246.
- (2) Carbon and the formation of reduced chondrules: an experimental investigation. **Harold C. Connolly Jr.**, Roger H. Hewins, Richard D. Ash, Brigitte Zanda, and Michele Bourot-Denise. (1994) *Nature* **371**, 136-139.
- (1) The influence of bulk composition and dynamic melting conditions of olivine chondrule textures. **Harold C. Connolly Jr.** and Roger H. Hewins. (1990) *Geochim. Cosmochim. Acta* **55**, 2943-2950.

#### CHRONOLOGY OF PUBLISHED ABSTRACTS

- (74) Petrologic – geochemical study of chondrules in enstatite chondrites. M. K. Weisberg, D. S. Ebel, **H. C. Connolly Jr.**, N. T. Kita, T. Ushikubo, J. W. Valley. (2009) Submitted to the 40<sup>th</sup> Lunar and Planet. Sci. Conf. #1886.
- (73) In situ discovery of a cluster of refractory grains in an Allende ferromagnesian chondrule. C. Ma, J.R. Beckett, G.R. Rossman, **H.C. Connolly, Jr.**, Y. Guan, J.M. Eiler, and A.E. Hofmann. (2009) Submitted to the 40<sup>th</sup> Lunar and Planet. Sci. Conf.
- (72) NWA 4477: A unique impact melt breccia. D. L. Schrader, D. S. Lauretta, **H. C. Connolly Jr.**, T. J. McCoy, R. C. Greenwood, and I. A. Franchi. (2009) Submitted to the 40<sup>th</sup> Lunar and Planet. Sci. Conf., #1854.
- (71) Microstructure of a sulfide-assemblage in a Renazzo type-II chondrule as revealed by transmission electron microscopy. (2009) D. L. Schrader, T. J. Zega, D. S. Lauretta, and **H. C. Connolly Jr.** Submitted to the 40<sup>th</sup> Lunar and Planet. Sci. Conf., #218.
- (70) Supra-canonical <sup>26</sup>Al detected by in situ LA-MC-ICPMS and SIMS techniques: But what does it mean? (2009) **H. C. Connolly, Jr.**, E. D. Young, G. R. Huss, K. Nagashima, W. F. McDonough, R. D. Ash, J. R. Beckett, E. Tonui, and T. J. McCoy. Submitted to the 40<sup>th</sup> Lunar and Planet. Sci. Conf., #1675.
- (69) On the relationship between chondrites, comets and asteroids, a petrologic perspective. M.K. Weisberg and **H.C. Connolly Jr.** (2008) *39<sup>th</sup> Lunar and Planet. Sci. Conf.* #1981.
- (68) Sacramento Wash 005 and MET 00428: Impact generated sulfide-rich Fe, Ni melts from the H-chondrite parent body. D.L. Schrader, **H.C. Connolly Jr.** and D.S. Lauretta. (2008) *39<sup>th</sup> Lunar and Planet. Sci. Conf.* #1185.
- (67) Mg isotope study of CAI's by UV laser ablation and solution MC-ICPMS: Implications for canonical and supra-canonical evolution. E.K. Tonui, **H.C. Connolly Jr.**, T. J. McCoy, and E.D. Young. (2008) *39<sup>th</sup> Lunar and Planet. Sci. Conf.* #1380.
- (66) Origin of Na-, Al-, Glass-rich chondrules in H, L and LL chondrites. C. E. Nehru, M.K. Weisberg, D. S. Ebel, J.S. Boesenberg and **H. C. Connolly Jr.** (2008) *39<sup>th</sup> Lunar and Planet. Sci. Conf.* #1697.
- (65) Aluminous spinels in ferromagnesian chondrules from Allende. C. Ma, J. R. Beckett, **H.C. Connolly Jr.** and G. R. Rossman. (2008) *39<sup>th</sup> Lunar and Planet. Sci. Conf.* #2030.
- (64) Oxygen isotopes and the nature and origins of type-II chondrules in CR2 chondrites. **Harold C. Connolly Jr.**, G. R. Huss, K. Nagashima, M. K. Weisberg, R. D. Ash, D. S. Ebel, D. L. Schrader and D. S. Lauretta. (2008) *39<sup>th</sup> Lunar and Planet. Sci. Conf.* #1675.
- (63) Refractory-rich asteroids: Concentrations of the most ancient materials in the solar system. Jessica Sunshine, **Harold C. Connolly Jr.**, Timothy J. McCoy, and S. J. Bus. (2007) *American Astronomical Society, DPS meeting #39*, #33.01.
- (62) Petrology of matrix in the Semarkona ordinary chondrites. Michael K. Weisberg, Denton S. Ebel and **Harold C. Connolly Jr.** (2007) *Meteorit. Planet. Sci.* **42**, *Supple*, p. 528.
- (61) Sulfide-rich assemblages in CR type-II chondrules formed by high-temperature gas-solid reactions. D. L. Schrader, D. S. Lauretta and **H. C. Connolly Jr.** in *Meteorit. Planet. Sci.* **42**, *Supple*. p. 524.

- (60) Olivine and the onset of thermal metamorphism in EH3 chondrites. C. Bendersky, M. K. Weisberg, **H. C. Connolly Jr.** and D. S. Ebel. (2007) *38<sup>th</sup> Lunar Planet. Sci. Conf.*, # 1613.
- (59) Identification of refractory-rich asteroids: Evidence for the earliest accreted bodies in the Solar System. Jess M. Sunshine, **Harold C. Connolly Jr.**, Timothy J. McCoy, S. J. Bus, and L. La Croix. (2007) *38<sup>th</sup> Lunar Planet. Sci. Conf.*, # 1613.
- (58) Petrologic-isotopic study of amoeboid olivine aggregates in CR chondrites. Michael K. Weisberg, Norkio T. Kita, Takayuki Ushikubo, **Harold C. Connolly Jr.**, Denton S. Ebel, M. J. Spicuzza, and John W. Valley. (2007) *38<sup>th</sup> Lunar Planet. Sci. Conf.*, #1588.
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