

Interstellar Medium or Kuiper Belt Objects Selected Publications: Preliminary List

By Ann Coppin

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The following a very selective list of publications mostly about the science aspects of Interstellar Medium. The emphasis is upon review articles and publications from 2000 to the current date. They are taken from either the existing Interstellar (not comprehensive) bibliography done for Bob Cesarone or from a quick search of the Web of Science or Compendex databases done today. The searches done today either tried to pick up addition mission oriented ISM publications or Kuiper Belt Objects publications. This is a very selective sample.

Abergel, A., L. Verstraete, C. Joblin, R. Laureijs, and M.-A. Miville-Deschenes (2005), The cool interstellar medium, *Space Science Reviews*, 119(1-4), 247-271, doi: <http://dx.doi.org/10.1007/s11214-005-8056-z>.

Barucci, M. A., E. Dotto, and A. C. Levasseur-Regourd (2011), Space missions to small bodies: asteroids and cometary nuclei, *Astronomy and Astrophysics Review*, 19, 1-29, doi: <http://dx.doi.org/10.1007/s00159-011-0048-2>.

Bramanti, C., D. Izzo, T. Samaraee, R. Walker, and D. Fearn (2009), Very high delta-V missions to the edge of the solar system and beyond enabled by the dual-stage 4-grid ion thruster concept, *Acta Astronaut.*, 64(7-8), 735-744, doi: <http://dx.doi.org/10.1016/j.actaastro.2008.11.013>.

Brown, M. E. (2012), The Compositions of Kuiper Belt Objects, *Annual Review of Earth and Planetary Sciences*, Vol 40, 40, 467-494, doi: <http://dx.doi.org/10.1146/annurev-earth-042711-105352>.

Calabrese, M. A., D. Carson, J. Robinson, J. Oberright, J. T. Vansant, K. A. Potocki, and J. Ayon (2003), Nasa's sun-earth connection program strategic planning, missions technology needs (2003-2028), paper presented at 2003 IEEE Aerospace Conference, March 8, 2003 - March 15, 2003, IEEE Computer Society, Big Sky, MT, United states, doi: <http://dx.doi.org/10.1109/AERO.2003.1235587>.

Christian, E. R. (2009), Observing the outskirts of the heliosphere: The Interstellar Boundary Explorer (IBEX) mission, paper presented at 31st International Cosmic Ray Conference, ICRC 2009, July 7, 2009 - July 15, 2009, University of Lodz, Lodz, Poland.

Christophe, B., et al. (2012), OSS (Outer Solar System): a fundamental and planetary physics mission to Neptune, Triton and the Kuiper Belt, *Experimental Astronomy*, 34(2), 203-242, doi: <http://dx.doi.org/10.1007/s10686-012-9309-y>.

Crawford, I. A. (2011), Project Icarus: A review of local interstellar medium properties of relevance for space missions to the nearest stars, *Acta Astronaut.*, 68(7-8), 691-699, doi: <http://dx.doi.org/10.1016/j.actaastro.2010.10.016>.

Dalton, J. B., D. P. Cruikshank, K. Stephan, T. B. McCord, A. Coustenis, R. W. Carlson, and A. Coradini (2010), Chemical Composition of Icy Satellite Surfaces, *Space Science Reviews*,

153(1-4), 113-154, doi: <http://dx.doi.org/10.1007/s11214-010-9665-8>.

Draine, B. T. (2009), Perspectives on interstellar dust inside and outside of the heliosphere, *Space Science Reviews*, 143(1-4), 333-345, doi: <http://dx.doi.org/10.1007/s11214-008-9411-7>.

Frisch, P. C., and H.-R. Mueller (2013), Time-Variability in the Interstellar Boundary Conditions of the Heliosphere: Effect of the Solar Journey on the Galactic Cosmic Ray Flux at Earth, *Space Science Reviews*, 176(1-4), 21-34, doi: <http://dx.doi.org/10.1007/s11214-011-9776-x>.

Frisch, P. C., et al. (2009), The Galactic Environment of the Sun: Interstellar Material Inside and Outside of the Heliosphere, *Space Science Reviews*, 146(1-4), 235-273, doi: <http://dx.doi.org/10.1007/s11214-009-9502-0>.

Funsten, H. O., et al. (2009), The Interstellar Boundary Explorer High Energy (IBEX-Hi) Neutral Atom Imager, *Space Science Reviews*, 146(1-4), 75-103, doi: <http://dx.doi.org/10.1007/s11214-009-9504-y>.

Garner, C. E. (2000), Large area sail design concepts, paper presented at 2000 IEEE Aerospace Conference, March 18, 2000 - March 25, 2000, Institute of Electrical and Electronics Engineers Computer Society, Big Sky, MT, United states.

Gruntman, M. (2004), Instrumentation for interstellar exploration, in *To the Edge of the Solar System and Beyond*, edited by I. H. Cairns, G. Genta and K. Scherer, pp. 204-212, Pergamon-Elsevier Science Ltd, Kidlington, doi <http://dx.doi.org/10.1016/j.asr.2003.04.064>.

Gruntman, M. (2004), Instrumentation for interstellar exploration, *Advances in Space Research*, 34(1), 204-212, doi: <http://dx.doi.org/10.1016/j.asr.2003.04.064>.

Guo, Y. P., and R. W. Farquhar (2008), New Horizons Mission Design, *Space Science Reviews*, 140(1-4), 49-74, doi: <http://dx.doi.org/10.1007/s11214-007-9242-y>.

Guven, U., P. K. Nanduri, G. Velidi, and S. Pande (2012), Interstellar communication techniques for long range mission spacecraft, paper presented at 63rd International Astronautical Congress 2012, IAC 2012, October 1, 2012 - October 5, 2012, International Astronautical Federation, IAF, Naples, Italy.

Hacyan, S. (2010), Equations of motion of a hybrid relativistic rocket and Bussard ramjet, *Acta Astronaut.*, 66(9-10), 1325-1328, doi: <http://dx.doi.org/10.1016/j.actaastro.2009.11.009>.

Heiles, C., and M. Havercorn (2012), Magnetic Fields in the Multiphase Interstellar Medium, *Space Science Reviews*, 166(1-4), 293-305, doi: <http://dx.doi.org/10.1007/s11214-012-9866-4>.

Jewitt, D. (1999), Kuiper belt objects, *Annual Review of Earth and Planetary Sciences*, 27, 287-312, doi: <http://dx.doi.org/10.1146/annurev.earth.27.1.287>.

Jokipii, J. R. (2013), The Heliospheric Termination Shock, *Space Science Reviews*, 176(1-4), 115-124, doi: <http://dx.doi.org/10.1007/s11214-012-9914-0>.

Kowalski, M. P., et al. (2003), Proposed Mission Concept for the Astrophysical Plasmadynamic Explorer (APEX): An EUV High Resolution Spectroscopic SMEX, paper presented at UV/EUV and Visible Space Instrumentation for Astronomy II, August 7, 2003 - August 7, 2003, SPIE, San Diego, CA, United states, doi: <http://dx.doi.org/10.1117/12.508548>.

Kusnierzewicz, D. Y., C. B. Hersman, Y. P. Guo, S. Kubota, and J. McDewitt (2005), A description of the Pluto-bound New Horizons spacecraft, *Acta Astronaut.*, 57(2-8), 135-144, doi: <http://dx.doi.org/10.1016/j.actaastro.2005.03.030>.

Lallement, R. (2007), The local interstellar medium: Peculiar or not?, paper presented at The Composition of Matter, Kluwer Academic Publishers, Van Godewijkstraat 30, P.O. Box 17, Dordrecht, 3300 AA, Netherlands, doi: <http://dx.doi.org/10.1007/s11214-007-9178-2>.

Landecker, T. L. (2012), The Role of Magnetic Fields in the Interstellar Medium of the Milky Way, *Space Science Reviews*, 166(1-4), 263-280, doi: <http://dx.doi.org/10.1007/s11214-011-9796-6>.

Leipold, M., A. Lyngvi, P. Falkner, V. Lappas, H. Fichtner, S. Kraft, and B. Heber (2005), Interstellar Heliopause Probe. design of a challenging mission to 200 AU, paper presented at 39th ESLAB Symposium: Trends in Space Science and Cosmic Vision 2020, April 19, 2005 - April 21, 2005, European Space Agency, Noordwijk, Netherlands.

Luu, J. X., and D. C. Jewitt (2002), Kuiper belt objects: Relics from the accretion disk of the sun, *Annual Review of Astronomy and Astrophysics*, 40, 63-101, doi: <http://dx.doi.org/10.1146/annurev.astro.40.060401.093818>.

Lyngvi, A., P. Falkner, and A. Peacock (2004), The interstellar heliopause probe, paper presented at 37th ESLAB Symposium: Tools and Technologies for Future Planetary Exploration, December 2, 2004 - December 4, 2004, European Space Agency, Noordwijk, Netherlands.

Lyngvi, A., P. Falkner, and A. Peacock (2005), The interstellar heliopause probe technology reference study, paper presented at The Dynamic Heliosphere, Elsevier Ltd, doi: <http://dx.doi.org/10.1016/j.asr.2005.07.083>.

Lyngvi, A., P. Falkner, S. Kemble, M. Leipold, and A. Peacock (2005), The interstellar heliopause probe, paper presented at Infinite Possibilities Global Realities, Selected Proceedings of the 55th International Astronautical Federation Congress, Vancouver, October 4, 2004 - October 8, 2004, Elsevier Ltd, doi: <http://dx.doi.org/10.1016/j.actaastro.2005.03.042>.

Mann, I. (2010), Interstellar Dust in the Solar System, *Annual Review of Astronomy and Astrophysics*, Vol 48, 48, 173-203, doi: <http://dx.doi.org/10.1146/annurev-astro-081309-130846>.

Mann, I., A. Czechowski, and S. Grzedzielski (2004), Dust measurements at the edge of the

solar system, in *To the Edge of the Solar System and Beyond*, edited by I. H. Cairns, G. Genta and K. Scherer, pp. 179-183, Pergamon-Elsevier Science Ltd, Kidlington, doi: <http://dx.doi.org/10.1016/j.asr.2003.03.051>.

Matloff, G. L., L. Johnson, and C. Maccone (2007), Helios and Prometheus: A solar/nuclear outer-solar system mission, *Jbis-Journal of the British Interplanetary Society*, 60(12), 439-442.

McComas, D. J. (2009), ENA imaging of the inner heliosheath-preparing for the Interstellar Boundary Explorer (IBEX), *Space Science Reviews*, 143(1-4), 125-138, doi: <http://dx.doi.org/10.1007/s11214-008-9410-8>.

McComas, D. J., W. S. Lewis, and N. A. Schwadron (2014), IBEX's Enigmatic Ribbon in the sky and its many possible sources, *Reviews of Geophysics*, 52(1), 118-155, doi: <http://dx.doi.org/10.1002/2013RG000438>.

McComas, D. J., et al. (2009), IBEX-Interstellar Boundary Explorer, *Space Science Reviews*, 146(1-4), 11-33, doi: <http://dx.doi.org/10.1007/s11214-009-9499-4>.

McComas, D., et al. (2005), The Interstellar Boundary Explorer (IBEX) mission, paper presented at Solar Wind 11/SOHO 16 - Connecting Sun and Heliosphere, June 12, 2005 - June 17, 2005, European Space Agency, Whistler, Canada.

McNutt, R. L., and R. F. Wimmer-Schweingruber (2009), Enabling interstellar probe, paper presented at 60th International Astronautical Congress 2009, IAC 2009, October 12, 2009 - October 16, 2009, International Astronautical Federation, IAF, Daejeon, Korea, Republic of.

McNutt, R. L., M. Gruntman, S. M. Krimigis, E. C. Roelof, and R. F. Wimmer-Schweingruber (2011), Interstellar Probe: Impact of the Voyager and IBEX results on science and strategy, *Acta Astronaut.*, 69(9-10), 767-776, doi: <http://dx.doi.org/10.1016/j.actaastro.2011.05.024>.

McNutt Jr, R. L., and R. F. Wimmer-Schweingruber (2011), Enabling interstellar probe, *Acta Astronaut.*, 68(7-8), 790-801, doi: <http://dx.doi.org/10.1016/j.actaastro.2010.07.005>.

McNutt Jr, R. L., et al. (2005), Innovative interstellar explorer, paper presented at Solar Wind 11/SOHO 16 - Connecting Sun and Heliosphere, June 12, 2005 - June 17, 2005, European Space Agency, Whistler, Canada.

McNutt Jr, R. L., et al. (2004), A realistic interstellar explorer, *Advances in Space Research*, 34(1), 192-197, doi: <http://dx.doi.org/10.1016/j.asr.2003.03.053>.

Mewaldt, R. A., and P. C. Liewer (2000), An interstellar probe mission to the boundaries of the heliosphere and nearby interstellar space, paper presented at Space 2000 Conference and Exposition, September 19, 2000 - September 21, 2000, American Institute of Aeronautics and Astronautics Inc., Long Beach, CA, United states.

Omidi, N., and H. Karimabadi (2003), Electrostatic Plasma Sail (EPS), paper presented at 39th AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit 2003, July 20, 2003 - July 23, 2003, American Institute of Aeronautics and Astronautics Inc., Huntsville, AL,

United states.

Pilbratt, G. L. (2008), Herschel mission overview and key programmes, paper presented at Space Telescopes and Instrumentation 2008: Optical, Infrared, and Millimeter, June 23, 2008 - June 28, 2008, SPIE, Marseille, France, doi: <http://dx.doi.org/10.1117/12.789431>.

Reynolds, R. J. (2004), Warm ionized gas in the local interstellar medium, *Advances in Space Research*, 34(1), 27-34, doi: <http://dx.doi.org/10.1016/j.asr.2003.02.059>.

Richardson, J. D., C. Wang, and L. F. Burlaga (2004), The solar wind in the outer heliosphere, *Advances in Space Research*, 34(1), 150-156, doi: <http://dx.doi.org/10.1016/j.asr.2003.03.066>.

Schubert, G., H. Hussmann, V. Lainey, D. L. Matson, W. B. McKinnon, F. Sohl, C. Sotin, G. Tobie, D. Turrini, and T. Van Hoolst (2010), Evolution of Icy Satellites, *Space Science Reviews*, 153(1-4), 447-484, doi: <http://dx.doi.org/10.1007/s11214-010-9635-1>.

Schwadron, N. A., and G. Gloeckler (2007), Pickup ions and cosmic rays from dust in the heliosphere, *Space Science Reviews*, 130(1-4), 283-291, doi: <http://dx.doi.org/10.1007/s11214-007-9166-6>.

Semay, C., and B. Silvestre-Brac (2007), Equation of motion of an interstellar Bussard ramjet with radiation loss, *Acta Astronaut.*, 61(10), 817-822, doi: <http://dx.doi.org/10.1016/j.actaastro.2007.02.003>.

Slavin, J. D. (2004), The radiation environment of the local interstellar medium, *Advances in Space Research*, 34(1), 35-40, doi: <http://dx.doi.org/10.1016/j.asr.2003.01.033>.

Stern, S. A. (2008), The New Horizons Pluto Kuiper Belt Mission: An Overview with Historical Context, *Space Science Reviews*, 140(1-4), 3-21, doi: <http://dx.doi.org/10.1007/s11214-007-9295-y>.

Stone, E. C., A. M. Frandsen, R. A. Mewaldt, E. R. Christian, D. Margolies, J. F. Ormes, and F. Snow (1998), The Advanced Composition Explorer, *Space Science Reviews*, 86(1-4), 1-22, doi: <http://dx.doi.org/10.1023/a:1005082526237>.

Wallace, R. A., J. A. Ayon, and G. A. Sprague (2000), Interstellar probe mission/system concept, paper presented at 2000 IEEE Aerospace Conference, March 18, 2000 - March 25, 2000, Institute of Electrical and Electronics Engineers Computer Society, Big Sky, MT, United states.

Wiedenbeck, M. E. (2013), Cosmic-Ray Energy Spectra and Time Variations in the Local Interstellar Medium: Constraints and Uncertainties, *Space Science Reviews*, 176(1-4), 35-46, doi: <http://dx.doi.org/10.1007/s11214-011-9778-8>.

Winglee, R. M., J. Slough, T. Ziembka, and A. Goodson (2000), Mini-Magnetospheric Plasma Propulsion: Tapping the energy of the solar wind for spacecraft propulsion, *Journal of Geophysical Research-Space Physics*, 105(A9), 21067-21077, doi: <http://dx.doi.org/10.1029/1999ja000334>.

Zank, G. P. (1999), Interaction of the solar wind with the local interstellar medium: a theoretical perspective, *Space Science Reviews*, 89(3-4), 413-688, doi: <http://dx.doi.org/10.1023/a:1005155601277>.