

CURRICULUM VITAE

Alexander T. Bazilevskiy (in publications use spelling **Basilevsky**)

Born: 4 October, 1937 in Voronezh, Russia

Education and Scientific Degrees:

1959, Master of Science in Geology, Voronezh State University, Voronezh.

1968, Doctor of Philosophy in Geochemistry, Vernadsky Institute of Geochemistry and Analytical Chemistry, USSR Academy of Sciences, Moscow.

1986, Doctor of Sciences in Geochemistry and Planetary Science, Vernadsky Institute of Geochemistry and Analytical Chemistry, USSR Academy of Sciences, Moscow.

2007, Professor in Geochemistry, Vernadsky Institute of Geochemistry and Analytical Chemistry, Russian Academy of Sciences, Moscow.

Professional Career

1954-1959, Student of Geological Department of Voronezh State University, Voronezh;

1959-1963, Junior Geologist, Geologist, Senior Geologist of the Geologic Mapping Expedition, Geologic Office of Central Regions, USSR Ministry of Geology and Protection of Earth Interiors, Moscow; 1:200,000 Geologic mapping in Moscow, Tambov, Vladimir and Voronezh provinces;

1963-1966, PhD Student of Geological Department of Moscow State University, Moscow; Experimental petrology of mafic and ultramafic rocks;

1966-1968, Senior Geologist of the Geologic Mapping Expedition, Geologic Office of Central Regions, USSR Ministry of Geology and Protection of Earth Interiors, Moscow; Geochemical Prospecting for Ore Deposits in Belgorod, Kursk, Lipetsk and Voronezh provinces of Central Russia;

1968-1975, Junior Scientist, Senior Scientist of Institute for Space Research, USSR Academy of Sciences, Moscow; Photogeologic studies of lunar surface;

1975-Present, Senior Scientist, Chief of Laboratory of Comparative Planetology (1982-2016), Chief Scientist (Since 2016) of Vernadsky Institute of Geochemistry and Analytical Chemistry, USSR/Russian Academy of Sciences, Moscow; Photogeologic analysis of the Moon, Venus, Mars, Phobos, Callisto, Ganymede and Triton; Studies of geology and geochemistry of terrestrial impact craters; Geological/geochemical consideration of chemical analyses of surface materials of Venus and Mars; Photogeologic mapping of Venus and Mars.

Involvement in Space Missions:

1968-1969, Selection of landing sites for Soviet manned expedition to the Moon (later cancelled) and study of sites' characteristics important for landing (areal densities

of craters and rock fragments, distribution of slopes).

1970-1976, Luna 16, 20, 24, Selection of landing sites and study of sites' characteristics important for landing, Photogeologic analysis of the sites in the regional context;

1971-1973, Lunokhod 1, 2, Selection of landing sites and study of sites characteristics important for landing; Photogeologic analysis of TV panoramas and operational planning of the current studies; Joint consideration of the results of photogeologic analysis, soil mechanics studies, and X-ray fluorescence bulk chemistry analyses;

1975-1986, Venera 9, 10, 13, 14, Vega 1, 2, Selection of landing sites; Photogeologic analysis of TV panoramas; Joint consideration of the results of photogeologic analysis, soil mechanics studies, as well as gamma-ray and X-ray fluorescence chemical analyses;

1983-1984, Venera 15, 16, Photogeologic analysis and geologic mapping of Venus surface;

1989, Voyager/Neptune encounter, Soviet guest investigator in NASA Voyager space mission, Photogeologic analysis of Triton, first finding of strike-slip faults on this body;

1990-1993, Magellan, Soviet/Russian guest investigator in NASA Magellan space mission, Photogeologic analysis and mapping of Venus surface with special attention to the Venera-Vega landing sites.

2002, Mars Odyssey, Geologic-geochemical interpretations of data acquired by Russian High Energy Neutron Spectrometer with special attention to searches of signatures of chemically bounded water on Mars.

2003-present, Mars Express (launched in 2003), Participating scientist in High Resolution Stereo Camera Experiment.

2005- 2011, Fobos Grunt (Russian sample return from Phobos, satellite of Mars, to be launched in 2009), Selection and characterization of landing sites, member of Advisory Committee.

2009-present, Luna Glob / Resource missions (Russian missions to the Moon, to be launched in 2021-2025), Selection and characterization of landing sites, preparation of the in-situ study program.

Temporary positions and activities:

1992-1993, then during 1994-2015, each year for three months – Senior Research Associate, then Visiting Professor, Department of Geological Sciences, Brown University, Providence, R.I., USA. Photogeologic analysis of the Magellan images of Venus: The model of regional/global stratigraphy and the geologic history of Venus worked out and published in several papers in Journal Geophysical Research Planets, Geophysical Research Letter, Planetary and Space Science, Geology.

1994, participation in field tests of the JPL US and IKI Russia models of Mars rovers in Mohave desert, California, USA.

1998, 2002, 2006-2008, Guest scientist at the Department of Astronomy, Oulu University, Oulu, Finland, Photogeologic study of Magellan images of Venus (corona-like features) and MOC images of Mars (joint analysis with Mars Odyssey neutron

spectrometry data).

1999-2015 for one to three months each of these years, Guest scientist (Humboldt Foundation awardee), Max-Planck Institute of Solar System Research, Katlenburg-Lindau, since 2014 in Gottingen, Germany. Photogeologic analysis of Mars Pathfinder TV panoramas, Study of local geology and soil characteristics for the Mars Polar Lander site, Selection of targets for IR spectrometer to be flown on-board of ESA mission SMART 1, Joint study of images of Mars material analogs taken by Beagle-2 TV microscope, Geologic analysis of Near-Infra-Red images of Venus surface taken by VMC camera, Venus Express.

2004-2013 for one to two months each year, Guest scientist, Free University of Berlin, Germany. Photogeologic analysis and mapping of images of Mars surface taken by the High Resolution Stereo Camera onboard of Mars Express. Review of the results of K-Ar dating of impact melts of lunar highlands.

Field expeditions:

1957, Central Kazakhstan, Studies of mineralogy of molybdenum bearing greisens of Northern and Eastern Kounrad ore deposits, 3 months.

1958, Central and Southern Kazakhstan, Studies of petrology of alaskite and biotite granites, 3 months.

1959-1963, Central Russia, 1:200,000 geologic mapping in Moscow, Tambov, Vladimir and Voronezh provinces, four months each year.

1963, Northern Kazakhstan, geochemical studies of Paleozoic metamorphic complexes, two months.

1965, Northern, Central, and Southern Urals, Studies of ultramafic rocks and associated chromite ores, one months.

1978, 1980, Impact crater Janisjarvi, Central Karelia, petrological and geochemical studies of impactites, for one month each of these two years.

1981, Kamchatka, Studies of morphology of volcanic landforms in the vicinity of Tolbachic basaltic volcano, six weeks.

1982, Kamchatka, Studies of morphology of volcanic landforms in the vicinity of Shiveluch andesite volcano, six weeks.

1983, India, Deccan plateau, Impact crater Lonar, Petrological and geochemical studies of impactites, one month.

Membership in Editorial Boards of Scientific Journals

1989-present, Member of Editorial Board, *Geokhimiya* (*Geochemistry International* is English language edition).

1991- present, Member of Editorial Board, *Astronomicheskii Vestnik* (*Solar System Research* is English edition).

1991-1997, Associate Editor, *Icarus*.

1995-present, Member of Board of Advisory Editors, *Planetary and Space Science*.

Organization of scientific conferences:

1985-2015, Vernadsky-Brown Microsymposia on Comparative Planetology, 55 microsymposia were organized for the last 27 years, odd in the US, even in the Soviet Union/Russia. 1985-1991, Deputy of Soviet Co-Chairman, 1992-2009, Russian Co-Chairman of the Organizing Committee.

1996-1999, Co-Chairman of Session “Geology and Geophysics of the Terrestrial Planets” of Section PS – “Planetary Science” of the General Assemblies of the European Geophysical Society.

2010-2018, Moscow Solar System Symposia, Member of Program Committee.

Awards:

1989, USSR State Award for the geologic analysis of the results of the Venera 15/16 radar survey.

1999, Humboldt Research Award, Federal Republic of Germany, in recognition of the research results in planetary studies.

2000, Runcorn-Florensky Medal of the European Geophysical Society, for pioneering work in planetary sciences and fundamental contributions to comparative planetology.

2001, Barringer Medal of the Meteoritical Society, for the outstanding results in studying meteoritic craters of Earth and other planets.

2004, Masursky Award of the Division of Planetary Science of the American Astronomical Society, in recognition of outstanding service to planetary science and exploration.

Named after: Asteroid 3991 Basilevsky, disc. 26 Sept. 1987 by E. Bowell.

Languages:

Russian (mother language), English (fluent).

Teaching experience

1992-2002, assisted Professor J. Head in teaching seminars on different topics in Planetary Geology (MS-PhD level), Geological Department, Brown University, Providence, R.I., USA.

1996-2006, Courses of lectures (24 hours) on Basics of Comparative Planetology, Geological Department, Moscow State University.

May 1997, Short Course in Planetary Geology (15 hours), Universita d'Annunzio, Pescara, Italy.

December 1998, Course on Venus Geology and Geophysics (32 hours), Oulu University, Oulu, Finland.

December 2000, Course on Geology and Geophysics of Mars (20 hours), Oulu University, Oulu, Finland.

May 2002, Short Course in Planetary Geology (15 hours), EU Summer School on Planetary Geology, Universita d'Annunzio, Pescara, Italy.

December 2007, Short Course in Planetary Geology (22 hours), China University of Geosciences, Wuhan, China.

October-November 2008, Short Course in Planetary Geology (12 hours), Institute for Space Research, Russian Academy of Sciences, Moscow, Russia.

October-November 2011, Short Course in Planetary Geology (12 hours), University of Geodesy and Cartography, Moscow, Russia.

February-March 2016, 2017, 2018, Short Course in Planetary Geology (14 hours), Macau University of Science and Technology, Macau, China.

SELECTED PUBLICATIONS

1. Florensky K.P., Basilevsky A.T., Gurshtein A.A., Zasetsky V.V., Zezin R.B., Pronin A.A., Popova Z.V. Geomorphologic analysis of the area of Mare Imbrium explored by the automatic roving vehicle Lunokhod 1. *Space Research XII-Academie-Verlag*, Berlin, 1972, 107-121.
2. Florenski C.P., Basilevski A.T., Kuzmin R.O., Chernaya I.M. Geomorphologic analysis of some Martian surface images from the Mars 4 and 5 automatic stations. *Icarus*, v. 26, 1975, 219-229.
3. Basilevsky A.T. On the evolution rate of small lunar craters. *Proc. Lunar Sci. Conf. 7th*, Pergamon Press, 1976, 1005-1020.
4. Florensky C.P., Ronca L.D., Basilevsky A.T. Geomorphologic degradations on the surface of Venus: An analysis of Venera 9 and Venera 10 data. *Science*, v. 196, N 4292, 1977, 869-871.
5. Florensky C.P., Basilevsky A.T., Ivanov A.V., Pronin A.A., Rode O.D. Luna 24: Geological setting of landing site and characteristics of sample core (preliminary data) *Proc. Lunar Sci. Conf. 8th*, v. 3, Pergamon Press, 1977, 3257-3280.
6. Ivanov B.A., Okulesky B.A., Basilevsky A.T. Shock wave, a possible source of magnetic fields? *Impact and Explosion Cratering*. Pergamon Press, 1977, 861-867.
7. Vanyan L.L., Vnuchkova T.A., Egorov I.V., Basilevsky A.T., Eroshenko E.G., Fainberg E.B., Dyal P., Daily W.D. Electrical conductivity anomaly beneath Mare Serenitatis detected by Lunokhod 2 and Apollo 16 magnetometers. *The Moon and the Planets*, 21, 1979, 185-192.
8. Surkov Yu.A., Moskaleva L.P., Basilevsky A.T., Kharyukova V.P., Manvelyan O.S. Geochemical interpretation of the results of measuring gamma-radiation of Mars. In: *Proc. 11th Lunar Planet Sci. Conf.* N 9, Pergamon Press, 1980, 669-676.
9. Ronca L.B., Basilevsky A.T., Kryuchkov V.P., Ivanov B.A. Lunar craters evolution and meteoroidal flux in pre-mare and post-mare times. *The Moon and the Planets*, 24, 1981, 209-229.
10. Basilevsky A.T., Bobina N.N., Shashkina V.P., Shkuratov Yu.G., Kornienko Yu.V., Usikov A.Ya., Stankevich D.G. On geological processes on Venus: Analysis of the relationship between altitude and degree of surface roughness. *The Moon and the Planets*, v. 27, 1982, 63-89.
11. Florensky C.P., Basilevsky A.T., Kryuchkov V.P., Kuzmin R.O., Nikolaeva O.V., Pronin A.A., Chernaya I.M., Tyufin Yu.S., Selivanov A.S., Naraeva M.K., Ronca L.B. Venera 13 and Venera 14: Sedimentary rocks on Venus? *Science*, v. 221, N 4605,

1983, 57-59.

12. Basilevsky A.T., Kuzmin R.O., Nikolaeva O.V., Pronin A.A., Ronca L.B., Avduevsky V.S., Uspensky G.R., Cheremukhina Z.P., Semenchko V.V., Ladygin V.M. The surface of Venus as revealed by the Venera landings: Part II. *Geol. Soc. Amer. Bull.*, v. 96, 1985, 137-144.

13. Alexandrov Yu.N., Crymov A.A., Kotelnikov V.A., Petrov G.M., Rzhiga O.N., Sidorenko A.I., Sinilo V.P., Zakharov A.I., Akim E.L., Basilevsky A.T., Kadnichansky S.A., Tyufin Yu.S. Venus: Detailed mapping of Maxwell Montes region. *Science*, v. 231, 1986, 1271-1273.

14. Barsukov V.L., Basilevsky A.T. and 28 other coauthors. The geology and geomorphology of the Venus surface as revealed by the radar images obtained by Venera 15 and 16. Proc. Lunar Planet. Sci. Conf. 16th, *Journ. Geophys. Res.*, v. 96, N B4, 1986, D378-398.

15. Ivanov B.A., Basilevsky A.T., Kryuchkov V.P., Chernaya I.M. Impact craters on Venus: Analysis of Venera 15 and 16 data. Proc. Lunar Planet. Sci. Conf. 16th, *Journ. Geophys. Res.*, v. 96, N B4, 1986, D413-430.

16. Basilevsky A.T., Ivanov B.A., Burba G.F., Chernaya I.M., Kryuchkov V.P., Nikolaeva O.V., Campbell D.G., Ronca L.B. Impact craters of Venus: A continuation of the analysis of data from the Venera 15 and 16 spacecraft. *Journ. Geophys. Res.*, 92, 1987, 12,869-12,901.

17. Janle P., Janssen D., Basilevsky A.T. Morphologic and gravimetric investigations of Bell and Eistla regiones on Venus. *Earth, Moon and Planets*, v. 39, 1987, 251-273.

18. Basilevsky A.T., Head J.W. The geology of Venus. *Annual Review of Earth and Planetary Science*, v. 16, 1988, 295-317.

19. Basilevsky A.T. The planet next door. *Sky and Telescope*, v. 77, N 4, 1989, 360-368.

20. Smith B.A., Soderblom L.A., Banfield D., Barnet C., Basilevsky A.T. and 60 other authrs. Voyager 2 at Neptune: Imaging Science Results. *Science*, v. 246, N 4936, 1989, 1422-1449.

21. Sukhanov A.L., Pronin A.A., Burba G.A., Nikishin A.M., Kryuchkov V.P., Basilevsky A.T., Markov M.S., Kuzmin R.O., Bobina N.N., Shashkina V.P., Slyuta E.N., Chernaya I.M. Geomorphic/geologic map of part of the Northern hemisphere of Venus. *Atlas of Venus, 1:15 000 000 topographic series, I-2059*, USGS, 1989.

22. Basilevsky A.T. Vital problems of Venus geology: Outlook for their resolution by Magellan and Post-Magellan missions. *Earth, Moon, and Planets*, 50/51, 1990, 3-24.

23. Basilevsky A.T., Ivanov B.A. Cleopatra crater on Venus: Venera 15/16 data and impact/volcanic origin controversy. *Geophys. Res. Lett.*, v. 17, N 2, 1990, 175-178.

24. Bindschadler D.L., Kreslavsky M.A., Ivanov M.A., Head J.W., Basilevsky A.T., Shkuratov Yu.G. Distribution of tessera terrain on Venus: Prediction for Magellan. *Geophys. Res. Lett.*, v. 17, N 2, 1990, 171-174.

25. Shkuratov Yu., Opanasenko N., Basilevsky A.T., Zhukov B., Kreslavsky M., Murchie S. A possible interpretation of bright features on the surface of Phobos. *Planetary and Space Science*, 39, N 1/2, 1991, 341-347.

26. Basilevsky A.T., Ivanov M.A., Borozdin V.K. Geology of Triton and some

comparative planetological implications. *Adv. Space Res.*, v. 12, N 11, 1992, 123-132.

27. Basilevsky A.T. Global tectonic style. In: *Venus Geology, Geochemistry, and Geophysics, Research results from the USSR*. V.L.Barsukov, A.T.Basilevsky, V.P.Volkov, V.N.Zharkov eds. The University of Arizona Press, Tucson, London, 1992, 140-152.

28. Basilevsky A.T., Nikolaeva O.V., Kuzmin R.O. Resurfacing. *ibid*, 153-160.

29. Nikishin A.M., Pronin A.A., Basilevsky A.T. Hot-spot structures. *ibid*, 31-67.

30. Basilevsky A.T., Nikolaeva O.V., Weitz C.M. Geology of the Venera 8 site region from Magellan data: Morphological and geochemical consideration. *J. Geophys. Res.*, v. 97, E10, 1992, 16315-16335.

31. Janle P., Basilevsky A.T., Kreslavsky M.A., Slyuta E.N. Heat loss and tectonic style of Venus. *Earth, Moon and Planets*, 58, 1992, 1-29.

32. Basilevsky A.T. Age of rifting and associated volcanism in Atla Regio, Venus. *Geophys. Res. Lett.*, v. 20, N 10, 1993, 883-886.

33. Ivanov M.A., Basilevsky A.T. Density and morphology of impact craters on tessera terrain, Venus. *Geophys. Res. Lett.*, v. 20, N 23, 1993, 2579-2582.

34. Weitz C.M., Basilevsky A.T. Magellan observations of the Venera and Vega landing site regions. *J. Geophys. Res.*, v. 98, E9, 1993, 17069-17097.

35. Yakovlev O.I., Basilevsky A.T. Experimental studies of geochemical aspects of impact cratering. *Geol. Soc. America Spec. Paper 293*, 1994, 73-80.

36. Basilevsky A.T., Factors controlling volcanism and tectonism in Solar system solid bodies. *Earth, Moon and Planets*, 1995, v. 67, N 1-3, 47-49.

37. Basilevsky A.T., Head J.W. Global stratigraphy of Venus: Analysis of a random sample of thirty six test areas. *Earth, Moon, and Planets*, v. 66, 1995, 285-336.

38. Basilevsky A.T., Head J.W. Regional and global stratigraphy of Venus: A preliminary assessment and implications for the geologic history of Venus. *Planetary and Space Science*, v. 43, N 12, 1995, 1523-1553.

39. Basilevsky A.T., Head J.W. Evidence for rapid and widespread emplacement of volcanic plains on Venus: Stratigraphic studies in the Baltis Vallis region. *Geophys. Res. Lett.*, v. 23, N 12, 1996, 1497-1500.

40. Basilevsky A.T. Venera 8 landing site geology revisited. *J. Geophys. Res.* v. 102, E4, 1997, 9257-9262.

41. Basilevsky A. T., Head J. W. Onset time and duration of corona activity on Venus: Stratigraphy and history from photogeologic study of stereo images. *Earth, Moon and Planets*, v. 76, 1997, 67-114.

42. Basilevsky A.T., Head J.W., Schaber G.G., Strom R.G. The resurfacing history of Venus. In: *Venus II - Geology, Geophysics, Atmosphere, and Solar Wind Environment*, Tucson: University of Arizona Press, eds. S.W. Bougher, D.M. Hunten, and R.J.Phillips, 1997, 1047-1086.

43. Basilevsky A.T., Head J.W. The geologic history of Venus: A stratigraphic view. *J. Geophys. Res.*, v. 103, E4, 1998, 8531-8544.

44. Head J.W., Basilevsky A.T. Sequence of tectonic deformation in the history of Venus: Evidence from global stratigraphic relationships. *Geology*, v. 26, N 1, 1998, 35-38.

45. Head J.W., Basilevsky A.T. Venus: Surface and interior. In: *Encyclopedia of the Solar System*. Academic Press, San Diego, eds. P. Weissman, L.-A. McFadden, and

T. V. Johnson, 1999, 161-189.

46. Collins G.C., Head J.W., Basilevsky A.T., Ivanov M. A. Evidence for rapid regional plains emplacement on Venus from the population of volcanically embayed impact craters. *J. Geophys. Res.*, v. 104, N E10, 1999, 24,121-24,139.

47. Basilevsky A.T., Markiewicz W.J., Thomas N., Keller H.U., Morphologies of rocks within and near the Rock Garden at the Mars Pathfinder landing site. *J. Geophys. Res.*, v. 104, 1999, 8617-8636.

48. Basilevsky A.T., Markiewicz W.J., Thomas N., Keller H. U., Morphology of APXS-analyzed rocks at the Mars Pathfinder Site. *Solar System Research*, v. 33, N 3, 1999, 170-186.

49. Basilevsky A.T., Markiewicz W.J., Thomas N., Keller H.U., Surface material and landscape characteristics at the Mars Polar Lander site: a consideration and predictions. *Solar System Research*, v. 33, N 6, 1999, 439-451.

50. Basilevsky A.T., Ivanov M.A., Kryuchkov V.P. On the degradation of impact craters on Callisto. *Solar System Research*, v. 34, N 4, 2000, 277-284.

51. Basilevsky A.T., Head J.W., Ivanov M.A., Kryuchkov V.P. Impact craters on the geologic units of Northern Venus: Implications for the duration of the transition from tessera to regional plains. *Geophys. Res. Lett.*, v. 26, N 16, 1999, 2593-2596.

52. Basilevsky A.T., Burba G.A., Ivanov M.A., Bobina N.N., Shashkina V.P., Head J.W. Analysis of the geologic structure and compilation of the geologic map of the northern part of planet Venus. *Solar System Research*, v. 34, N 5, 2000, 349-378.

53. Basilevsky A.T. and Head J.W., Geologic units on Venus: evidence for their global correlation. *Planetary and Space Science*, v. 48, N. 1, 2000, 75-111.

54. Basilevsky A.T. and Head J.W., Rifts and volcanoes of Venus: Global assessment of their age relations with regional plains. *Journ. Geophys. Res.*, v. 105, N E10, 2000, 30,123-30,139.

55. Basilevsky A.T., Ivanov M.A. and Kryuchkov V.P. On the degradation state of impact craters on Callisto. *Solar System Research*, v. 34, N 4, 2000, 277-287.

56. Skorov Yu.V., Markiewicz W., Basilevsky A.T., Keller H.U. Stability of water ice under porous nonvolatile layer: implications to the south polar layered deposits of Mars. *Planetary and Space Science*. v. 49, N 1, 2001, 59-63.

57. Basilevsky A.T. and Raitala J. Morphology of selected novae (astra) from the analysis of Magellan images at Venus. *Planetary and Space Science*, v. 50, N 1, 2002, 21-39.

58. Basilevsky, A.T. and J.W. Head, On rates and styles of late volcanism and rifting on Venus, *Journ. Geophys. Res.*, v. 10. 1029/2000JE001471, 2002.

59. Basilevsky A.T., Head J.W. Venus: Analysis of the degree of impact crater deposit degradation and assessment of its use for dating geologic units and features. *J. Geophys. Res.*, v. 107, E8, 10.1029/2001JE001584, 2002, 5-1 – 5-38.

60. Basilevsky A.T., Head J.W. Venus: Timing and rates of geologic activity. *Geology*, v. 30, No 11, 1015-1018. 2002.

61. Vezolainen A.V., Solomatov V.S., Head J.W., Basilevsky A.T., Moresi L.-N., Timing of formation of Beta Regio and its geodynamic implications. *J. Geophys. Res.*, v. 108, E1, 5002, doi:10.1029/2002JE001889, 2003.

62. Basilevsky A.T., Head J.W., Setyaeva I.V., Venus: Estimation of age of impact craters on the basis of degree of preservation of associated radar-dark deposits. *Geophys. Res. Lett.*, v. 30, 18, 1950 doi:10.1029/2003GL017504, 2003.
63. Basilevsky A.T. Exploration of the Moon by Soviet spacecraft. In: *Encyclopedia of Space Science and Technology*, John Willey and Sons, Hans Mark ed., 2003, 654-662.
64. Moroz V.I., Basilevsky A.T. Venus missions. In: *Encyclopedia of Space Science and Technology*, John Willey and Sons, Hans Mark ed., 2003, 841-857.
65. Vezolainen A.V., Solomatov V.S., Basilevsky A.T., Head J.W. Uplift of Beta Regio: Three-dimensional models. *J. Geophys. Res.*, v. 109, E08007, doi:10.1029/2004JE002259, 2004.
66. Basilevsky A.T., Keller H.U., Nathues A., Mall U., Hiesinger H., Rosiek M. Scientific objectives and selection of targets for the SMART-1 Infrared Spectrometer (SIR). *Planetary and Space Science*, v. 52, issue 14, 2004, 1261-1285.
67. Basilevsky A.T., Head J.W., Abdrakhimov A.M. Impact crater air fall deposits on the surface of Venus: Areal distribution, estimated thickness, recognition in surface panoramas, and implications for provenance of sampled surface materials. *J. Geophys. Res.*, v. 109, E12003, doi:10.1029/2004JE002307, 2004.
68. Neukum G., Jaumann R., Hoffmann H., Hauber E., Head J. W., Basilevsky A.T., Ivanov B.A., Werner S.C., van Gasselt S., Murray J.B., McCord T. Recent and episodic volcanic and glacial activity on Mars revealed by the High Resolution Stereo Camera. *Nature*. v. 432, No 7020. 2004, 971-979.
69. Thomas N., L'uthi B.S., Hviid S.F., Keller H.U., Markiewicz W.J., Bl'umchen T., Basilevsky A.T., Smith P.H., Tanner R., Oquest C., Reynolds R., Josset J.-L., Beauvivre S., Hofmann B., Ruer P., Pillinger C. T.. The microscope for Beagle 2. *Planetary and Space Science*, v. 52, 2004. 853-856.
70. Basilevsky A.T., Neukum G., Ivanov B.A., Werner S.C. van Gasselt S., Head J. W., Denk T., Jaumann R., Hoffmann H., Hauber E., McCord T., and the HRSC Co-Investigator Team. Morphology and geological structure of the western part of the Olympus Mons volcano on Mars from the analysis of the Mars Express HRSC imagery. *Solar System Research*. v. 39. No 2. 2005. 99-116.
71. Basilevsky A.T., Head J.W., Impact craters on regional plains on Venus: Age relations with wrinkle ridges and implications for the geological evolution of Venus. *J. Geophys. Res.*, v. 111, E03006, doi:10.1029/2005JE002473, 2006.
72. Basilevsky A.T., Rodin A.V., Raitala J., Neukum G., Werner S., Kozyrev A.S., Sanin A.B., Mitrofanov I.G., Head J.W., Boynton W., and Saunders R.S. Search for causes of the low epithermal neutron flux anomaly in the Arabia Terra region (Mars). *Solar System Research*. v. 40. No 5. 2006. 355-374.
73. Basilevsky A.T., Keller H.U. Comet nuclei: Morphology and implied processes of surface modification. *Planetary and Space Science*, v. 54, No 8, 2006. 808-829.
74. Basilevsky A.T., Head J.W., Beta Regio, Venus: Evidence for uplift, rifting, and volcanism due to a mantle plume. *Icarus*, v. 192, 167-186, 2007.
75. Basilevsky A.T., Ivanov M.A., Head J.W., Aittola M., Raitala J., Landing on Venus: Past and future. *Planetary and Space Science*, v. 55, 2097-2112, 2007.

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77. Basilevsky A.T. Geologic Map of the Beta Regio, Quadrangle (V-17) Venus: *USGS Scientific Investigation Map 3023 and Pamphlet (34 p)*. U.S. Geological Survey. 2008.
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