Jiri Brezina
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Date of Birth: 6 April 1933
Place of Birth: Prague (CSR)

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Marital Status: married, 2 children

Education

Charles University (Prague, September 28, 1956):
Diploma in Geology and Geochemistry — Bachelor's Science degree equivalent

Charles University (Prague, March 30, 1962):
Aspirant Minimum (Dissertation) in Sedimentary Petrography — Master of Science degree equivalent

Charles University (Prague, December 15, 1967):
Candidate of Geol. Sciences in Mineralogy and Petrography — PhD (Doctor of Philosophy) degree equivalent

Employment

Central Geological Survey of Czechoslovakia, Prague — Sept. 1, 1955 – Aug. 25, 1968

Geochronological Laboratory, Geol. Inst., Univ. of Heidelberg — Mar. 1, 1971 – Feb. 28, 1972

University of Maryland, European Div., 32 years of continuous teaching geology, physical science and astronomy — January 1973 – present

GranoMetry, consulting scientist & company president: research in sand texture sedimentology; development, construction & supply of computerized laboratory equipment, such as Sand Sedimentation Analyzer and/or Sand Sedimentation Separator has been contracted by the following research institutions:

Department of Sedimentology, University	Heidelberg	Germany	1971
Department of Geology, University	Marburg	Germany	1972
Department of Geology & Paleontology, Univ.	Tübingen	Germany	1973
Geol. Laboratory, AGIP	Milano	Italy	1973, 1978
Dept. of Hydromechanics (Franzius Institute), Univ.	Hannover	Germany	1975
Geological Survey of Germany (BGR)	Hannover	Germany	1975
Dept. of Hydromechanics, Army Univ. NeuBiberg	Munich	Germany	1978
Dept.of Geology, Techn. Univ.	Berlin	Germany	1979
Department of Geology & GEOMAR, Univ.	Kiel	Germany	1979, 1988
Inst. of Mechanical Engineering, Technical Univ.	Karlsruhe	Germany	1979
Inst. of Mechanical Engineering, Technical Univ.	Clausthal-Zellerfeld	Germany	1980
Geol. Laboratory of SNEA(P), Boussens	St. Martory, Pau	France	1982
Oceanographic Institution, CSIR	Stellenbosch	S. Africa	1984, 1986
Geological Institute of Petroleum & Natural Gas	Fieri	Albania	1986
Senckenberg Research Inst. of Marine Sciences	Wilhelmshaven	Germany	1986
Dept. of Geology, Alfred Wegener Inst. of Polar Research	Bremerhaven	Germany	1986
Department of Geology, University	Trieste	Italy	1992
Department of Geography, University	København	Denmark	1996
Department of Geology, University	Wien	Austria	1998
Marine Science Institute	Gdansk	Poland	1998
Marine Science Institute, Algarve University	Olhao/Faro	Portugal	2000

Consulting in sand movement along the southern coast of the Bay of Venezuela & Bahia del Tablazo for Instituto Nacional de Canalizaciones, Caracas (Chacao), Venezuela May 1972

Consulting in the theory of size distribution of Moon's dust, impact craters, & (micro)meteorites for Max Planck Inst. of Nuclear Physics, Dept. of Cosmochemistry, Heidelberg, Germany 1974

Professional Honors

Contributor to the two-volume (1527 pages) Geologic Encyclopedia, main editor Josef Svoboda, published by Czechoslovakian Academy of Sciences, Geol. – Geography Section, Central Geological Survey, Prague (CSSR), in the field of sedimentary petrography & geochemistry, 1969 - 1961

National Editor for Czechoslovakia of *Sedimentology* (a publication of International Association of Sedimentologists), Leyden, The Netherlands 1962 – 1968

Editor of the Proceedings of the 24th Internat. Geol. Congress, Prague, CSSR, 1967 – 1968

Alexander von Humboldt Postdoctoral Fellowship (Bonn – Bad Godesberg, Germany) at the Inst. of Mechanical Engineering, Univ. of Karlsruhe, Germany, Jan. 1, 1969 – Feb. 28, 1971

Chairman of the Conference on Sand Sedimentation Analyzers, 8th Internat. Sedimentol. Congress, Internat. Association of Sedimentologists, Heidelberg, Germany, Sept. 1971

Patent 22 51 838 awarded for Foil-Spring Precision Balance, Munich, Germany, 24 July 1975

Co-Chairman of the 1st Working Group Meeting on Modern Methods of Grain Size Analysis, International Union of Geological Sciences, Committee on Sedimentology, Bedford Institute of Oceanography (BIO), Dartmouth, Canada, Jan. 1986

Organizer & Co-Chairman of the 2nd Working Group Meeting on Modern Methods of Grain Size Analysis, Internat. Union of Geological Sciences, Committee on Sedimentology, University of Heidelberg, Heidelberg, Germany, Oct. 1987

Main Scientific Achievements

Stratigraphy, Mineralogy, and Geochemistry of the Miocene Volcanism of Carpathian Mts. on the Territory of Moravia and Slovakia from Mostly New Occurrences of its Pyroclastic Admixtures within the Intra- and Extra-Carpathian Mollasse Deposits (J. Brezina, 1967). Based on fieldwork and laboratory analyses of more than 12,000 samples (most of them from boreholes up to 4 km), this study provides a valuable correlation tool for stratigraphy of the Miocene sediments, particularly in the search for petroleum and natural gas.

Mathematical Formula for the Drag coefficient as a Function of the Reynolds' Number and Shape Factor of Irregular Sedimenting Particles (J. Brezina, 1979b). The formula makes it possible to explicitly compute any variable from the remaining variables involved, such as particle size, sedimentation velocity, SF particle shape, particle density, fluid viscosity, fluid density and gravity acceleration, within a wide range of the Reynolds' number. This equation generalizes and merges the Stokes' and Newton's sedimentation equations and provides an additional parameter (particle Shape Factor), in other words, in contrast to the popular formulas of Matthews (R. J. Gibbs et al., 1979), the relationship by Brezina features a full polynomial solution (free of the limitations known for the Gibbs' formulas), not only for spherical but also irregular natural particles. The author has processed more than 5,000 critically selected data for that equation and materialized its numerical solution by a computer program SedVar™ (current version 7.0, written in C++ language). This program can mutually convert not only single values but also the distributions of the main sedimentation variables. The author is currently developing an algebraic solution of the main equation using the method of Lodovico Ferrari, 1540 (Gerolamo Cardano, *Ars magna de Regulis Algebraicis*, 1545).

Mathematical expression for limiting terms of mutual hydrodynamic interference of sand-sized particles sedimenting in a stratified suspension (J. Brezina 1970). This relationship determines a suitable size of sand samples (used for sedimentation studies) at which the particles settle as individual grains without streaming phenomena.

Mathematical solution for determination of particle shape (SF) from a settling rate distribution matched to a sieve particle size distribution by equaling their inverse distribution functions (J. Brezina 1980). The method is materialized within the program SHAPE™, originally written in FORTRAN language, and currently converted into C++. The resulting series of SF values can be used for automatic calibration of the author's Sand Sedimentation Analyzer and his program SedVar™.

Development of Sand Sedimentation Separator (J. Brezina 1988). This world-unique laboratory instrument is capable of isolating sediment samples into as many as 25 fractions based upon differences in arbitrarily chosen sedimentation velocity values. The separation, applied even on small

samples, uses all particles of each; and does not leave any not-separated remainders. Used on sieve fractions, this instrument makes possible the separation of particles according to their dynamic density and/or shape almost continuously. This is useful for isolation of heavy minerals (without a need to use poisonous heavy liquids) and porous microfossils (without tedious manual work under the microscope).

Invited Presentations

"Types of Statistical Distributions and the Homogeneity of a Statistical Population";
A Two-Day Seminar "Application of Mathematical Methods in Geology"; Czechoslovakian Scientific – Technical Society and Central Geological Survey, Prague (Czechoslovakia), Nov. 1967

"Stratified Sedimentation above Stokes' Range and its Use for Particle Size Analysis";
Particle Size Analysis Conference, University of Bradford (England) Sept. 1970

"Settling Methods for Size Analysis of Sands";
8th International Sedimentological Congress of IAS, Univ. of Heidelberg (Germany) Sept. 1971

Day 1 "Grain Size Analysis of Sands, Particularly by a Sedimentation Technique: Theory & Demonstration of a Computerized Precision Sedimentation Balance" (in English);
Day 2 "Origin & Interpretation of Grain Size Distribution; Application Examples from Sedimentology";
Day 3 "Discussion and Free Analyzing of the Samples of Visitors" (in English);
Labor. of Mining Geology (Prof. M. G. Atjak), Delft Techn. Univ., Netherlands; Apr. 1975

"Drag coefficient as a Function of the Reynolds' Number and Shape Factor of Sedimenting Particles Applied to Sand Grain Size Analysis: Theory & Demonstration of a Computerized Settling Tube" (in English); Inst. of Hydraulic Research (Prof. Hunter Rouse & Prof. John F. Kennedy), University of Iowa, Iowa City, IA (USA); May 1977

"Particle size and settling rate distributions of sand-sized materials" (in English);
2nd European Symposium on Particle Characterisation (PARTEC),
24 – 26 September 1979, Nürnberg (Germany) Sept. 1979

"Sedimentological Interpretation of Errors in Size Analysis of Sands" (in English);
1st European Meeting of IAS, University of Bochum (Germany) Mar. 1980

"Size Distribution of Sand – Sedimentological Interpretation" (in English);
26th International Geological Congress, July 7 - 17, Paris (France), July 1980

"Grain-Size Analysis of Sand-Sized Materials" (in German);
Seminar, Department of Crystallography, Univ. of Regensburg (Germany); Dec. 1980

"Modern Methods of Grain Size Determination of Sand-Sized Material" (in German);
Thursday-Colloquium, Inst. of Mineralogy & Petrology, Univ. of Munich (Germany); May 1984

"Sedimentological Variables of Sands – Measuring & Interpretation" (in German);
Nov. 14, 1985, Inst. of Sediment Research, Mineralogic-Petrographic Institute,
University of Heidelberg (Germany) Nov. 1985

"Sedimentological Variables of Sands – Measuring & Interpretation" (in German); Dec. 9,
1985, Geological – Paleontological Institute and Museum, University of Kiel (Germany) Dec. 1985

"Grain Density Distribution and Separation of Sand-Sized Minerals by Sedimentation"
(in German); 2nd Heavy Mineral Meeting, Inst. of Geology and Paleontology (Prof. D. Henningsen), Univ. of Hannover (Germany) Apr. 1988

"Sedimentation Analysis of Sand-Sized Materials" (in Czech);
54th Petrological Seminar, Dept. of Petrology, Charles's Univ., Prague (CSSR) Apr. 1990

"Sedimentation of Particles with Irregular Shape (Merging of the Stokes' & Newton's Laws and their Extension to Non-spherical Particles)" (in Czech);
Extraordinary Petrol. Seminar, Dept. of Petrology, Charles's Univ., Prague (CS Rep.) Nov. 1992

Field Geological Experience

Miocene Mollasse in Moravia and Slovakia

Permotriassic of Palatinate Forest

Professional Societies

International Association of Sedimentologists, Paris (France),	1962 - 1999
Society of Economic Paleontologists and Mineralogists, Tulsa, OK (USA)	1963 - 1998
American Geological Institute, Alexandria, VA (USA)	1968 - 1995
German Geological Society, Hannover (Germany)	1971 - present
German Mineralogical Society, Bonn (Germany)	1971 - 1990

Special Administrative Activity

Liaison Representative for UMUC to Charles University of Prague (Czech Republic):
interchange of individual students and faculty;
faculty and student participation on mutual cultural and science projects;
negotiation to establish a UMUC Campus in Prague. 1991 - present

References

1. Brezina, Jiri, 1956a, Report on geological mapping of the SE part of the south Moravian Lowland in the year 1955; petrographic evaluation of some Neogene sediments in the north and north-east part of the Inner-Alpine Vienna basin (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 10 pages.
2. Brezina, Jiri, 1956b, Petrographic evaluation of some sediments of the Vah river valley Neogene (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 10 pages.
3. Brezina, Jiri, 1956c, Inner-Alpine Miocene in south-east Moravia and western Slovakia; study in sedimentary petrography (in Czech); Master Thesis, Faculty of Natural Sciences, Charles' University, Prague (CSSR); Geofond (Central State Geological Archive), Prague (CSSR), 75 pages.
4. Brezina, Jiri, Tibor Buday & Ivan Cicha, 1956d, Report on geologic investigations in the South Moravian Lowland in the year 1955 (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), pages.
5. Brezina, Jiri, 1957a, Report on sediment-petrographic investigations in the inner-Carpathian Miocene 1956, Turiec basin (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 29 pages.
6. Brezina, Jiri, 1957b, Report on the petrography of Neogene sediments of the Turiec basin (in Czech); *Reports on Geological Investigations in the year 1956*, Central Geological Survey, Prague (CSSR); p. 18 - 19.
7. Brezina, Jiri & Tibor Buday, 1957, Rhyolitic tuffites in the Upper Helvetian and Sarmatian of the Moravian Lowland (in Czech, German summary); *Vestnik of the Central Geological Survey*, Prague (CSSR), vol. 32, No. 3/March, p. 178 - 182.
8. Brezina, Jiri, 1958a, Partial report on petrographic investigations in the year 1957; sedimentary-petrographic investigation of the Inner-Carpathian Miocene, South-Moravian Lowland (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 21 pages.
9. Brezina, Jiri, 1958b, Partial report on petrographic investigations in the year 1957; planimetric estimations of microscopic objects (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 15 pages.
10. Brezina, Jiri, 1959a, Preliminary report on new findings of pyroclastic materials in Miocene sediments in Moravia and western Slovakia (in Czech); *Reports on Geological Investigations in the year 1957;* Central Geological Survey, Prague (CSSR), p. 14 - 15.

11. Brezina, Jiri, 1959b, Report on the petrography of Lower-Pannonian sediments of the Vah River valley - so called "Piestany beds" (in Czech); *Reports on Geologic Investigations in the year 1957,* Central Geological Survey, Prague (CSSR), p. 15 - 16.

12. Brezina, Jiri, 1959c, A quick method of modal analysis (Czech, English summary); *Vestnik of the Central Geological Survey,* Prague (CSSR), vol. 34, No. 3/March, p. 161 - 169.

13. Brezina, Jiri, 1959d, Report on the petrography of Neogene sediments from the boreholes of the Central Geological Survey in the Vah River valley in the year 1957 (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 6 pages.

14. Brezina, Jiri, 1959e, Petrographic characteristics of the Lower Tortonian sediments of the Boskovice Graben (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 9 pages.

15. Brezina, Jiri, 1959f, Petrographic evaluation of the borehole GB-2, Vcelna (south from Ceske Budejovice, South Bohemia), layer-groups from Zliv-Gmünd and from Mydlovary-Borovany (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 5 pages.

16. Brezina, Jiri, 1960a, Methods of the determination of grain size distribution (in Czech); Geofond, Prague (CSSR), 3 pages.

17. Brezina, Jiri, 1960b, Principles of comminution (grinding) and calculation of characteristics of a granulometric composition; review (in Czech) of the Russian book by S. E: Andreev , V. V. Tovarov and V. A. Perov, Moscow (Metallurgizdat), 1959, 437 pages; *Vestnik of the Central Geological Survey,* Prague (CSSR), vol. 35, No. 3/March, p. 179 - 180.

18. Brezina, Jiri, 1960c, Preliminary petrographic and geochemic investigation of the Neogene rocks from Eastern Slovakia (Explanations to the geological general map of Czechoslovakia, sheet Trebisov (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 23 pages.

19. Brezina, Jiri, 1960d, Petrographic investigation of the Miocene sedimentary rocks of the Carpathian Fore deep (from the area of the geological general map of Czechoslovakia, sheet Brno, M-XXIX, task XXX/16 (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 9 pages.

20. Brezina, Jiri, 1960e, Petrographic investigation of the Lower Tortonian sedimentary rocks from the boreholes near Lobodice (for the underground gas reservoir); sheet M-33-95-D (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 3 pages.

21. Brezina, Jiri, 1960f, Petrographic investigation of the Neogene sediments of the Moravian Lowland (including the Hradiste graben) and from the Vah River valley (explanations to the geological general map of the CSR, sheet Gottwaldov) (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 23 pages.

22. Brezina, Jiri, 1961a, Overview of the current petrographic knowledge about the sedimentary rocks of the Miocene of the Moravian foredeep (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 32 pages.

23. Brezina, Jiri, Ivan Cicha + Frantisek Picha, 1961b, Lithologic description of the boreholes "AVB-VB" drilled in the year 1960 on the general map of CSR, sheets M-33-106-D (Slavkov near Vyskov) and M-33-118-B (Velke Bilovice) (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), ... pages.

24. Brezina, Jiri, 1961c, Current knowledge about clay minerals of the Neogene of the Vienna basin in the area of CSSR (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 18 pages.

25. Brezina, Jiri + Bedrich Jellinek, 1961d, Report about the development state of an automatic apparatus for sedimentation analyses (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 11 pages.

26. Brezina, Jiri + Bedrich Jellinek, 1962a, Development of an automatic apparatus for grain size analyses (in Czech); *Geol. pruzkum* (SNTL, Prague, CSSR), vol. 4, No. 4/April, p. 121 - 122.

27. Brezina, Jiri, 1962b, Grain size composition of detritic sedimentary rocks (in Czech); a compilation work as a pre-requisite for the PhD Thesis; Faculty of Natural Sciences, Charles' University, Praha, 184 pages.

28. Brezina, Jiri, 1962c, Report about the sediment-petrographic investigations of the Miocene, map of CSSR in the scale 1:50,000, sheet M-33-106-B, Vyskov, in the year 1961 (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), p. 8 - 15.

29. Brezina, Jiri, 1962d, Contribution to the petrography and geochemistry of the Neogene pyroclastic rocks in the Eastern Slovakia (map of CSSR in the scale 1:200,000, sheet M-33-XXVII, Kosice, and sheet M-33-34-XXXIV, Trebisov) (in Czech); Reports about Geological Investigations in the year 1961, Central Geological Survey, Prague (CSSR), p. 221 - 4.

30. Brezina, Jiri + Ivan Cicha, T. Czudek, J. Dvorak, F. Holanek, R. Rezac, and V. Spicka, 1962e, Explanations to the geological special map 1:50,000, sheet M-33-106-B, Vyskov (Task 5/2) (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), p. 19 - 28, and 58 - 87.

31. Brezina, Jiri + Ivan Cicha, 1963a, Stratigraphy and lithology of the Neogene; in: Ivan Cicha, Explanations to the geological special Map 1:50,000, sheet M-33-106-C, Zidlochovice (Task 5/2) (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), p. 72 - 118.

32. Brezina, Jiri, 1963b, Expert evaluation of reserves of quartz-sand deposits (area of Znojmo, localities Dobsice and Havraniky) (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 10 pages.

33. Brezina, Jiri, 1963c, Kapteyn's transformation of grain size distribution; *Journal Sediment. Petrology*, v. 33, No. 4/December, p. 931 - 7.

34. Brezina, Jiri, 1963d, Classification and measures of grain size distribution, a preliminary report (English, Czech summary); *Vestnik of the Central Geological Survey*, Prague (CSSR), vol. 38, No. 6, p. 409 - 13.

35. Brezina, Jiri, 1964a, Report about the sediment-petrographic investigations of the Miocene, sheet Moravsky Krumlov, M-33-105-D, of the special map of CSSR 1:50,000 (in Czech); Geofond (Central State Geological Archive), Prague (CSSR), 28 pages.

36. Brezina, Jiri, 1964b, An instrument for automatic grain size analysis of sands: an improvement suggestion No. ZN/64 (in Czech), Central Geological Survey, Prague (CSSR), Archiv, pages.

37. Brezina, Jiri + Ivan Cicha + Jano Dornic, 1966, Stratigraphy and lithology of the Neogene; in: Jano Dornic et al., Explanations to the geological special map of CSSR 1:50,000, sheet M-33-107-A, Ivanovice na Hane (in Czech); Geofond (Central State Geological Archive), Praha (CSSR), p. 44 - 91.

38. Brezina, Jiri, 1967a, Miocene sedimentary rocks of the Carpathian foredeep in Middle Moravia: Ph.D. thesis, Faculty of Natural Sciences, Charles' University, Praha, Czechoslovakia, 251 pages (particularly p. 5 - 8).

39. Brezina, Jiri, 1967b, Homogeneity of a statistical population, basic distribution types; examples from size distributions of sedimentary rocks (manuscript in Czech); Seminar on Application of Mathematical Methods and Modern Computing Technology in Geology; Czechoslovakian Scientific-Technical Society at Geologicky pruzkum, Central Geological Survey, Prague; 6 - 7 November 1967, pages II/1 - II/6.

40. Brezina, Jiri, 1969, Granulometer - a Woods Hole Rapid Sediment Analyzer directly writing grain size distribution curves: *Jour. Sediment. Petrology*, v. 39, No. 4/December, p. 1627-1631.

41. Brezina, Jiri, 1970,

42. Brezina, Jiri, 1971a, Settling methods for size analysis of sands: *Abstracts* of the 8th International Sedimentological Congress of the International Association of Sedimentology, University of Heidelberg (Germany), 30 Aug. - 4 Sept. 1971, p. 13.

43. Brezina, Jiri, 1971b, Investigations on an instrument for sedimentation analysis in the particle range above 60 µm (in German): Report about research studies of the author at the Institute for Mechanical Engineering, University of Karlsruhe (1968 - 1971); an unpublished report for the German Society for Scientific Research, DFG (Bad Godesberg – Bonn, Germany), 48 pages.

44. Brezina, Jiri, 1972a, Stratified sedimentation above the Stokes' range and its use for particle size analysis: in M. J. Groves & J. L. Wyatt-Sargent (editors), 2nd Particle Size Analysis Conference,

University of Bradford (England), September 1970, paper 22, The Society of Analytical Chemistry, London (England), p. 255 - 266

45. Brezina, Jiri, 1972b, Leaf-spring precision balance (in German); German Patent Office (Deutsches Patentamt), Munich, No. 2251838, registered October 1972, effective 1974; 4 columns and 1 drawing.
46. Brezina, Jiri, 1972c, Report about the thorium-protactinium method of dating marine sediments (development of chemical separation and chemical and physical quantitative determination of both elements) (in German); Laboratory for Geochronology, University of Heidelberg, March 1, 1971 - February 28, 1972;
47. Brezina, Jiri, 1973, *Coastal Research,* March, p. 2 - 6
48. Brezina, Jiri & Karl Schmetzer, 1975, Emeralds from Ghana (a short note in German); *Zeitschrift der Deutschen Gemmologischen Gesellschaft* (Idar Oberstein, Germany), vol. 24, No. 2/June, p. 94
49. Brezina, Jiri, 1978a, Computer-controlled grain size analysis of sand-sized materials, MacroGranometer (in German); *Chemie-Technik,* Heidelberg (Germany), February 1978, p. 1
50. Brezina, Jiri, 1978b, And another grain! Grain size analysis of sand sized solids (in German); *Labo,* September 1978, p. 922 + 924.
51. Brezina, Jiri, 1978c, MacroGranometer™ Standard 1978, Operation Program Manual: GranoMetry, D-6903 Neckargemünd-3 (Germany), 3rd edition, 10 November 1978 (unpublished manual), 22 pages
52. Brezina, Jiri, 1979a, MacroGranometer™ 1979, parts; GranoMetry, D-6903 Neckargemünd-3, W. Germany (unpublished technical documentation), 18 pages.
53. Brezina, Jiri, 1979b, Particle size and settling rate distributions of sand-sized materials: 2nd European Symposium on Particle Characterisation (PARTEC), Nürnberg, West Germany, reprinted (+1 page of comments and corrections) by the author on 25 January 1998; 44 pages.
54. Brezina, Jiri, 1980a, GranoMetry: for grain size analyses (in German), *GIT Labortechnik* (Darmstadt), February 1980, p. 86
55. Brezina, Jiri, 1980b, Sedimentological interpretation of errors in size analysis of sands; 1st European Meeting of the International Association of Sedimentologists, Ruhr University at Bochum (Germany), March 1980, p. 9 - 11.
56. Brezina, Jiri, 1980c, Size distribution of sand – sedimentological interpretation; 26th International Geological Congress, Paris (France), July 1980, Abstracts, vol. 2, p. 442.
57. Brezina, Jiri, 1980d, Grain size analysis of sand-sized materials (in German); *Labor-Praxis,* Vogel-Verlag, D-8700 Würzburg 1 (Germany), vol. 3, p. 245 - 256.
58. Brezina, Jiri, 1981, Contribution to Sand Texture Sedimentology; *Coastal Research* (Florida State Univ., Tallahassee), vol. 5, No. 10, March, p. 5 - 9.
59. Brezina, Jiri, 1986, MacroGranometer, Operation Manual (in Czech); unpublished manuscript issued by GranoMetry, Dr. J. Brezina, D-6903 Neckargemünd-3, Germany, 16 December 1986, 34 pages.
60. Brezina, Jiri, 1989, Sand sedimentation analysis and separation - 25 years of research and development (in German); *Deutsche Geologische Gesellschaft Nachrichten,* vol. 41, No. 10/October, p. 149-153.
61. Brezina, Jiri, 1990, Grain size analyses of sand-sized solids upon contract (in German); *Kontrolle* (Stuttgart), No. 5/May 1990, p. 61.
62. Brezina, Jiri, 1992, Principles, Methods, and Application of Particle Size Analysis: review of the book by James P. M. Syvitski (Ed.); *Basin Research,* vol. 4/1992, No. 2/June, p. 165-167.
63. Brezina, Jiri, 1993, Geology in the Czech Republic; *Geotimes,* August 1993, p. 9 - 10.
64. Brezina, Jiri, 1996, SedVar™, version 6.2C, computer program for GRM data processing, enabling conversion of PSI-laboratory distributions into those of any other sedimentational variable, such as

PHI grain size specified by a grain shape, PSI-standard, PSI-local (to any physical terms, such as sea water salinity, temperature and local gravity acceleration), logarithmic Reynolds' number, logarithmic grain density, and logarithmic grain shape; unpublished manuscript issued by GranoMetry, Dr. J. Brezina, D-69151 Neckargemünd-3 (Germany).

65. Brezina, Jiri, 2001 (November): Grain Size Distribution (in German: *Korngrößenverteilung),* in: Wolfgang R. DACHROTH, 2002, Manual of Engineering Geology and Geotechnics (in German: *Handbuch der Baugeologie und Geotechnik),* chapter 1.7.1; Springer Verlag, Heidelberg, Germany, 3rd edition (640 pp.); http://www.springer.de/cgi-bin/search_book.pl?isbn=3-540-41353-7