

List of published scientific papers or creative professional work and information about the didactic achievements, scientific cooperation and popularization of science.

I. List of publications that are scientific achievements, which are referred to in Article 16 Paragraph 2 of the Act of March 14, 2003, on Academic Degrees and Scientific Title and Degrees and Title in the Field of Arts (Journal of Laws No. 65, item 595, with amendments).

A) Title of scientific achievement: Monography: „Cambrian phytoplankton of the Brunovistulicum – taxonomy and biostratigraphy.”

JACHOWICZ-ZDANOWSKA M., 2013 - Cambrian phytoplankton of the Brunovistulicum – taxonomy and biostratigraphy. *Polish Geological Institute Special Papers*, 28: 1-150.

The work is a summary of my many-year research on Cambrian microfossils of the Acritarcha group identified in the tectonic units referred to as Brunovistulicum, consisting of the Upper Silesian Block in southern Poland, and the Brno Block in Moravia (Czech Republic). I am the author of the concept of the study, text, figures and photo plates. I also performed all technical and laboratory work concerning maceration and segregation of organic material used for the study. My percentage contribution to the authorship of the study is 100%.

II. List of other published scientific papers (not included in the list of achievements shown in Section I) and indices of scientific achievements.

A) Scientific publications in journals included in the Journal Citation Report (JCR)

1. JACHOWICZ M., 1995 - Ordovician acritarch assemblages from central and northwestern Saudi Arabia. *Review of Palaeobotany and Palynology*, 89: 19-25.

The paper presents the results of the research of acritarch assemblages from three exploration wells located in the central and north-western Saudi Arabia. The studies enabled to distinguish individual Ordovician stratigraphic units (Tremadocian-Arenigian, early and late Caradoc and Ashgill). A comparison of microflora associations with similar associations from North Africa and Europe was also carried out.

The study was completed in 1992 during my stay in the UK as part of a scholarship funded by the TEMPUS program. I was then incorporated into the international team of palynologists that carried out a study on Palaeozoic deposits from some boreholes in Saudi Arabia. (- 6).

2. BUŁA Z., JACHOWICZ M., ŻABA J., 1997 – Principal characteristics of the Upper Silesian Block and Małopolska Block border zone (southern Poland). *Geological Magazine*, 133: 669-677.

This paper presents for the first time new suggestions of the geological structure in the contact zone of the Upper Silesian Block and the Małopolska Block based on the results of lithostratigraphic and tectonic investigations.

I am a co-author of the concept of the study, text and interpretation of the age of identified microfossils documenting the age of the Borzęta and Goczałkowice formations distinguished within the Cambrian deposits of the Upper Silesian Block. I was also responsible for the final English version of the study. I estimate my contribution to the authorship of the study at 30% (Number of citations in the Scopus database - 77).

3. JACHOWICZ-ZDANOWSKA M., 2011a – Organic microfossil assemblages from the Ediacaran rocks of the Małopolska Block, southeastern Poland. *Geological Quarterly*, 55: 85-94.

The work is a summary of the current state of research on organic microfossils documented in anchimetamorphic rocks of the basement of the Małopolska Block. This paper contains the results of my several-year research on the Ediacaran microflora found in boreholes drilled in various parts of this tectonic unit, from the Kraków region in the west, to the Przemyśl-Leżajsk region in the east. The concept of the study, text, figures and photographic documentation are my sole authorship. I made all technical and laboratory work concerning maceration and segregation of organic material for the study. My percentage contribution to the authorship of the study is 100%.

4. JACHOWICZ-ZDANOWSKA M., 2011b - Cambrian organic microfossils at the border area of the East – and West – European platforms (SE Poland and Western Ukraine). *Annales Societatis Geologorum Poloniae*, 81: 241–267.

In this paper, I presented the results of palynological stratigraphic studies conducted in more than 40 boreholes drilled in south-eastern Poland and western Ukraine. The concept of the study, text, figures and photographic documentation are my sole authorship. I made all technical and laboratory work concerning maceration and segregation of organic material for the study. My percentage contribution to the authorship of the study is 100%.

(Number of citations in the Scopus database since 2011 – 9)

B) Granted domestic and international patents - NONE

C) Inventions and utility and industrial models that are protected and have been exposed at international and national exhibitions or fairs - NONE

D) Monographs, scientific publications in international or domestic journals, not stored in the database referred to in Section A:

Publication before 1991

1. JACHOWICZ M., PIEKARSKI K., WIELGOMAS L., 1987 – Akritarchy z utworów syluru okolic Myszkowa. *Kwartalnik Geologiczny*, 31:323-340
2. UTTING J., JACHOWICZ M., JACHOWICZ A., 1989 – Palynology of the Lower Carboniferous Emma Fiord formation of Devon, Axel Heiberg, and Ellesmere Island, Canadian Arctic Archipelago. *Bulletin – Geological Survey of Canada*, 396:145-171. (Number of citations in the Scopus database 12)
3. GŁADYSZ J., JACHOWICZ M., PIEKARSKI K., 1990 – Akritarchy paleozoiczne z okolic Siewierza (północne obrzeżenie GZW). *Kwartalnik Geologiczny*, 34: 623-646. (Number of citations in the Scopus database – 9)
4. JACHOWICZ M., 1990 - Z badań nad akritarchami spągowych utworów cechsztynu w Polsce. *Prace naukowe Uniwersytetu Śląskiego, Geologia* T 19/11: 50-74.

Publication after 1991

1. JACHOWICZ M., 1993 - Notatka o występowaniu Acritarcha i Chitinozoa w sylurze Zawiercia. *Prace naukowe Uniwersytetu Śląskiego, Geologia* 1331, 12/13:137-143.
The paper presents the results of animal and plant microfossils found in rock samples from a 200-metre Paleozoic section in the RK-4 borehole drilled in Zawiercie. The concept of the study, text, figures and photographic documentation are my sole authorship. My percentage contribution to the authorship of the study is 100%.
2. BUŁA Z., ŻABA J., JACHOWICZ M., PERSKI Z., SIEWNIAK-MADEJ A., 1994 – Problemy litostratygrafii i tektoniki starszego paleozoiku północno-wschodniego obrzeżenia GZW (wycieczka B). *Przewodnik LXV Zjazdu Polskiego towarzystwa Geologicznego*, 22-24 Sosnowiec. *Prace Naukowe UŚl. Katowice*, 1431: 135-172. In this paper, I was responsible for the presentation of new stratigraphic data derived from the research of Lower Palaeozoic sections of boreholes in the Żarki region. My percentage contribution to the authorship of the study is 10%.
3. JACHOWICZ M., 1994 –. The occurrence of the acritarchs in the Lower Palaeozoic of NE margin of GZW. *Przegląd Geologiczny*, 42: 631-637.

This paper contains preliminary results of investigations of microfossils from Cambrian and Silurian deposits of three boreholes located in the marginal zones of the Upper Silesian and Małopolska blocks. The concept of the study, text, figures and photographic documentation are my sole authorship. I also made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 100%.

4. JACHOWICZ M., MORYC W., 1995 – Cambrian platform deposits in the Rajbrot 1 and Rajbrot 2 south of Bochnia (southern Poland). *Przegląd Geologiczny*, 43: 935-940. I was the performer of palynological research in this study. The results were the basis for establishing the Cambrian age of these clastic deposits, so far barren palaeontologically, drilled under carbonate Middle Devonian rocks. I am a co-author of the concept of the study and a co-author of the chapter on the Lower Cambrian lithostratigraphy, as well the author of photographic documentation and English summary. I performed all technical and laboratory work concerning maceration and segregation of organic material of the palynological study. My percentage contribution to the authorship of the study is 50%. (Number of citations of the paper in the Scopus database - 15)
5. PASZKOWSKI M., JACHOWICZ M., MICHALIK M., TELLER L., UCHMAN A., URBANEK Z., 1995 - Composition, age and provenance of gravel-sized clasts from the Upper Carboniferous of the Upper Silesian Coal Basin (Poland). *Studia Geologica Polonica*, 198: 45-127. In this study, I am the author of subsection "Organic-walled microfossils from chert clasts". For this study, I conducted palynological investigations of clasts in Upper Carboniferous rocks of the Upper Silesian Coal Basin. Based on palynomorphs, it was possible to determine Proterozoic and Silurian age of rocks composing the clasts. I am the author of the chapter text and photographic documentation of microfloral specimens. I made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 10%. (Number of citations of the paper in the Scopus database - 13)
6. BUŁA Z., JACHOWICZ M., 1996 - The Lower Paleozoic sediments in the Upper Silesian Block. *Geological Quarterly*, 40: 299-324. I am a co-author of the concept of the study. I performed palynological investigations of rock samples from some boreholes, documenting the Cambrian age of the deposits. I am the author of photographic documentation of microfloral associations. I made all technical and laboratory work concerning maceration and segregation of organic material for palynological analyses. My percentage contribution to the authorship of the study is 50%. (Number of citations of the paper in the Scopus database - 77)
7. JACHOWICZ M., 1996 - Lower Palaeozoic Acritarch Assemblages from the Upper Silesian Block (USB). *Acta Universitatis Carolinae Geologia* 40: 457. My percentage contribution to the authorship of the study is 100%.
8. DZIADZIO P., JACHOWICZ M., 1996 – Geological structure of the Miocen substrate SW Lubaczów Uplift (SE Poland). *Przegląd Geologiczny*, 44: 1124-1130.

I am a co-author of the concept of the study and the author of the chapters "The history of stratigraphic research" and "The characteristics of palynological material". I performed palynological investigations of rock samples from some boreholes, documenting the Lower Cambrian age of the deposits. I am the author of photographic documentation of microfloral associations. I made all technical and laboratory work concerning maceration and segregation of organic material for palynological analyses. The results of the studies of basement rocks in the eastern part of the Carpathian Foredeep (to the SW of the Krzeszów-Lubaczów line in the central part containing the Ryszkowa Wola horst) demonstrated that the basement is composed of Lower Cambrian rocks, and not only of Precambrian, as previously thought. My percentage contribution to the authorship of the study is 50%. (Number of citations of the study in the SCOPUS database - 22)

9. JACHOWICZ M., PŘICHYSTAL A., 1996 – Discovery of Lower Cambrian sediments in some deep boreholes in South Moravia. (In Czech). *Geologické Výzkumy na Moravě a ve Slezsku*, p. 64. I am a co-author of the study concept. I made palynological analyses of rock samples from three deep boreholes: Měnin 1, Němčičky 3 and Němčičky 6 (Moravia, Czech Republic). Můj wkład procentowy w autorstwo pracy wynosi 50%.

10. JACHOWICZ M., PŘICHYSTAL A., 1997 – Lower Cambrian sediments in deep boreholes in south Moravia. *Bulletin of the Czech Geological Survey, (Bulletin of Geosciences)*, 72 (4): 329-332.

I am a co-author of the study concept. I made palynological analyses of rock samples from three deep boreholes: Měnin 1, Němčičky 3 and Němčičky 6 (Moravia, Czech Republic), where Lower Devonian clastics are underlain by clastic deposits considered to be Devonian. The palynological analyses indicate their Cambrian age, and not Devonian as previously thought. I am the author of the interpretation of the age of the sections, and I also performed photographic documentation of microfossil associations from these sections. I made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 50%. (Number of citations in the Scopus database - 21)

11. BUŁA Z., JACHOWICZ M., PŘICHYSTAL A., 1997 – Lower Paleozoic deposits of the Brunovistulicum. In: EUROPROBE: Trans-European Suture Zone Meeting, 3-5 November 1997, Potsdam, Germany. *Terra Nostra*, 11: 167-171. I am a co-author of the study concept. I made palynological analyses of rock samples. My percentage contribution to the authorship of the study is 40%.

12. JACHOWICZ M., 1997 - Upper Permian acritarch assemblages from Poland. *Prace PIG CLVII*, Proceedings of the XIII International Congress on the Carboniferous and Permian: 237-242. My percentage contribution to the authorship of the study is 100%.
13. ŻELAŻNIEWICZ A., BUŁA Z., JACHOWICZ M., ŻABA J., 1997– The crystalline basement SW of the Trans-European Suture Zone in Poland: Neoproterozoic (Radomian) orogen. In: EUROPROBE: Trans-European Suture Zone-Meeting, 3-5 November 1997, Potsdam, Germany. *Terra Nostra* 11: 167-171. I am a co-author of the study concept. My percentage contribution to the authorship of the study is 10%.
14. 2000 JACHOWICZ M. – Acritarch assemblages from the Silurian Pomeranian Caledonides and their foreland. *Geological Quarterly*, 44: 317-331. My percentage contribution to the authorship of the study is 100%.
15. 2000 MORYC W., JACHOWICZ M. – Utwory prekambryjskie w rejonie Bochnia – Tarnów – Dębica. *Przegląd Geologiczny*, 48: 601-606. My contribution to the development of this study is palynological analyses of rock samples from boreholes and stratigraphic age determinations of microfossil associations. I am a co-author of the study concept and of the chapter "Lithology and stratigraphy", and the author of the chapter "Previous microfloral studies" and photographic documentation of fossils. I made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 50%. (Number of citations in the SCOPUS database - 12) My percentage contribution to the authorship of the study is 50%.
16. 2001 JACHOWICZ M. - Acritarcha. Atlas skamieniałości. PIG. Budowa Geologiczna Polski, t. III, Perm: 95-105, Warszawa. I am the autor of the charter Acritarcha. My percentage contribution to the authorship of the study is 100%.
17. 2003 JACHOWICZ M. - Acritarcha. In: *Palinologia* DYBOVA-JACHOWICZ S., SADOWSKA A. (eds.), Wydawnictwa Naukowe Instytutu Botaniki PAN, Kraków: 364-383. I am the autor of the charter „Acritarcha”. My percentage contribution to the authorship of the study is 10%.
18. 2004 PURKYŇOVÁ E., GILIKOVÁ H., JACHOWICZ M., FILIPIAK P. - Paleobotanical records from Devonian clastics in Měnin and Kozlovice boreholes (Moravia, Czech Republic). *Čas. Slez. Muz. Opava (A)*, 53: 193-204. I am the co-author of the study koncept. My percentage contribution to the authorship of the study is 25%.
19. 2005 BUŁA Z., HABRYN R., JACHOWICZ M., MARKOWIAK M., PACZEŚNA J. – The characteristics of Precambrian and Palaeozoic rocks and signs of ore mineralization in the contact zone of the Upper Silesian and Małopolska blocks (Tour 10. Guidebook of the 76th

Congress of PTG (Polish Geological Society), Geology and environmental issues in the Upper Silesian region. Rudy near Rybnik, September 14-16, 2005, Warsaw. Polish Geological Institute, Polish Geological Society: 171-182. In this guidebook, I am a co-author of the chapter "Precambrian and Lower Palaeozoic in the marginal parts of the Upper Silesian and Małopolska blocks". I was responsible for the analysis and presentation of palynological data and determination of their significance for establishing the stratigraphy of the Precambrian and Lower Paleozoic deposits in this area. My percentage contribution to the authorship of the study is 20%.

20. JACHOWICZ M., 2005 – Ordovician acritarchs from the Upper Silesian Block. *Przegląd Geologiczny*, 53: 756-762. My percentage contribution to the authorship of the study is 100%.

21. BUŁA Z., HABRYN R. (eds.); BRYŚ I., FLOREK R., JACHOWICZ M., KWARCIŃSKI J., LASKOWICZ R., LISZKA B., MADAEJ K., MAKSYM A., MARKOWIAK M., PIETRUSIAK M., PROBULSKI J., RYŁKO W., SALWA S., SIKORA R., STARYSZAK G., TABOL-WÓJCIK P., TOMAŚ A., ZACHARSKI J., 2008 – Geological atlas. Państwowy Instytut Geologiczny, Warszawa. My percentage contribution to the authorship of the study is 5%.

22. BUŁA Z., CYMERMAN Z., JACHOWICZ M., KOWALCZEWSKI Z., SZCZEPANIK Z., ŻYLIŃSKA A., 2008 – Cambrian and Precambrian. W: WAGNER (red.) Stratigraphical column. Państwowy Instytut Geologiczny, Warszawa. I was responsible for the analysis and presentation of palynological data and determination of their significance for establishing the stratigraphy of the Precambrian and Cambrian deposits in this area. My percentage contribution to the authorship of the study is 10%.

23. JACHOWICZ-ZDANOWSKA M., 2010 – Palynology of Lower Cambrian in Kraków area. I am a co-author of the concept of the study. I performed palynological investigations of rock samples from some boreholes, documenting the Cambrian age of the deposits. I am the author of photographic documentation of microfloral associations. I made all technical and laboratory work concerning maceration and segregation of organic material for palynological analyses. My percentage contribution to the authorship of the study is 100%.

A) Develop agreements, collection, catalogs, documentation, research and works of art.

1. JACHOWICZ M., 1994 –The Paleozoic stratigraphy of the NE margin of the USB based on acritarch microflora. Narodowe Archiwum Geologiczne (obrzeżGZW/31), pp. 1-36, 26 tabl. My percentage contribution to the authorship of the study is 100%.

2. BUŁA Z., KARWASIECKA M., HABRYN R., JACHOWICZ M., LASOŃ K., MARKIEWICZ J., MARKOWIAK M., PACHOLEWSKI A., SIEWNIAK-MADEJ J., ŚLÓSZARZ J., TRUSZEL M., WAGNER J., WOŹNIAK P., WYCIŚLIK K., ŻABA J., 1995 - The project of geological Narodowe Archiwum Geologiczne. My percentage contribution to the authorship of the study is 10%.
3. BUŁA Z., JACHOWICZ M., SIEWNIAK-MADEJ A., MARKIEWICZ J., TRUSZEL M., 1995 - Lithostratigraphic and petrographic studies of Paleozoic in NE margin of GZW. Narodowe Archiwum Geologiczne (obrzGS/32), pp. 1-62, 7 zał. My percentage contribution to the authorship of the study is 20%.
4. JACHOWICZ M., 1998 - Characteristic of acritarchs assemblages in Carboniferous in Steżyca 2 area. Narodowe Archiwum Geologiczne (Niż/346), pp. 1-4, 1 zał. My percentage contribution to the authorship of the study is 100%.
5. JACHOWICZ M., BUŁA Z., DYBOVA-JACHOWICZ S., 1998 - Biostratigraphy on acritarchs and palynomorphs. Narodowe Archiwum Geologiczne (R/153), pp. 1-62, 17 tablic. My percentage contribution to the authorship of the study is 30%.
6. JACHOWICZ M., 1999 - Results of microfloristic investigation from Lower Paleozoic and Precambrian sediments in marginal parts of USB and MB. Narodowe Archiwum Geologiczne (Obrz. GS/47), pp. 25-, 13 tablic. My percentage contribution to the authorship of the study is 100%.
7. DYBOVA-JACHOWICZ S., BUŁA Z., JACHOWICZ M., 1999 - Development of Carboniferous in the contact zone of the USB and MB. Projekt KBN 9T 12B01014, Narodowe Archiwum Geologiczne (Obrze.GS/51), pp.1-49, 13 zał. My percentage contribution to the authorship of the study is 20%.
8. JACHOWICZ M., 2000 - Cambrian acritarch assemblages of the Upper Silesian Block. Narodowe Archiwum Geologiczne (GS/223), pp.1-50, 18 zał. My percentage contribution to the authorship of the study is 100%.
9. NAWROCKI J., BUŁA Z., HABRYN R., 2001 - GRABOWSKI J., JACHOWICZ M., JAROSIŃSKI M., JÓŹKOWIAK W., KRZEMIŃSKI L., KRZYWIEC P., PACZEŚNA J., POPRAWA P., ZIENTARA P. - Zintegrowana analiza geofizyczno-geologiczna kambryjskiej pokrywy masywu górnośląskiego. Narodowe Archiwum Geologiczne. My percentage contribution to the authorship of the study is 50%.
10. JACHOWICZ M., ŻELAŻNIEWICZ A., BUŁA Z., BOBIŃSKI W., HABRYN R., MARKOWIAK M., SEGHEDEI A., ŻABA J., 2002 - Geneza i pozycja stratygraficzna podkambryjskich i poordowickich anchimetamorficznych skał w południowej Polsce -

przedpole orogenu neoproterozoicznego ? Projekt KBN T12B03217, Narodowe Archiwum Geologiczne (nr.inw. 3307-B, R/194). I was a leader of the Project. My percentage contribution to the authorship of the study is 30%.

11. BUŁA Z., HABRYN R., JACHOWICZ M., MARKOWIAK M., 2003 – Research of Ordovician and Silurian in Rzeszów and Lubaczów-Krzeszów areas. My percentage contribution to the authorship of the study is 30%.

12. ŻELAŻNIEWICZ A., BIERNACKA J., BOBIŃSKI W., BUŁA Z., DYMNA K., DZIADZIO P., FANNING M., FLOREK R., HABRYN R., JACHOWICZ M., KOWALSKA S., KOZŁOWSKI W., KRZEMIŃSKI L., MARKIEWICZ J., MARKOWIAK M., NOWAK I., TRELA W., WOŹNIAK P., ŻABA J., 2004 – raport merytoryczny z projektu celowego zamawianego „Paleozoiczna akrecja Polski” PCZ-07- 21. Narodowe Archiwum Geologiczne. My percentage contribution to the authorship of the study is 50%.

13. RYŁKO W., TOMAŚ A., TOMASIOWA A., BUŁA Z., JACHOWICZ M., 2005 – Rozwój brzeżnej części podłoża Karpat zewnętrznych i zapadliska przedkarpackiego w południowo-wschodniej Polsce i zachodniej Ukrainie w paleozoiku. Narodowe Archiwum Geologiczne. Mój wkład w powstanie pracy polegał na interpretacji zgromadzonych danych palinologicznych. My percentage contribution to the authorship of the study is 10%.

14. JACHOWICZ M., BUŁA Z., HABRYN R., MARKOWIAK M., SIKORA R., JURCZAK-DRABEK A., WOŹNIAK P., 2006 – Analiza geologiczno-geochemiczna utworów paleozoiku pod kątem ustalenia związków pomiędzy budową geologiczną paleozoicznego podłoża Karpat i jego przedpola a rozprzestrzenieniem złóż węglowodorów. Archiwum Polskiego Górnictwa Naftowego i Gazownictwa, Kraków, Warszawa. My percentage contribution to the authorship of the study is 30%.

15. BUŁA Z., BRYŚ I., HABRYN R., FLOREK R., JACHOWICZ M., KWARCIŃSKI J., LASKOWICZ R., LISZKA B., MADAEJ K., MAKSYM A., MARKOWIAK M., PIETRUSIAK M., PROBULSKI J., RYŁKO W., SALWA S., SIKORA R., STARYSZAK G., TABOL-WÓJCIK P., TOMAŚ A., ZACHARSKI J., 2007 – Geological structural maps of the Paleozoic substrate of the Carpathians and Carpathians foredeep. Narodowe Archiwum Geologiczne, Warszawa. My percentage contribution to the authorship of the study is 5%.

16. HABRYN R., BUŁA Z., CHMURA A., FILIPIAK P., GARECKA M., INDYK A., JACHOWICZ M., MARKOWIAK M., MATYJA B.A., NOWAK J., OLSZEWSKA B., PACZEŚNA J., POLECHOŃSKA O., SIKORA R., STADMULLER M., TOMAŚ A., TRUSZEL M., WOŹNIAK P., ZIÓŁKOWSKI P., ŻABA J., 2007 - Geological documentation of the Trojanowice -2 exploratory borehole - Integrated program of shallow

exploration boreholes to solve important problems of the geological structure of Poland. Problem 10 Geological and structural identification of the Kraków-Lubliniec fault zone in the Kraków area. National Geological Archives, Warsaw, Sosnowiec.

My contribution to the study consisted in the implementation and interpretation of palynological analyses from selected depth intervals. I am a co-author of the subsection entitled "Cambrian" within the chapter "The results of stratigraphic and sedimentological studies" I made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 5%.

17. HABRYN R., BUŁA Z., CHMURA A., JACHOWICZ M., MARKOWIAK M., MATYJA B.A., NOWAK J., OLSZEWSKA B., PIENKOWSKI G., POLECHOŃSKA O., SIKORA R., STADMULLER M., TOMAŚ A., TRUSZEL M., ZIAJA J., ZIÓŁKOWSKI P., ŻABA J., 2007 - Geological documentation of the Cianowice -2 exploratory borehole - Integrated program of shallow exploration boreholes to solve important problems of the geological structure of Poland. Problem 10 Geological and structural identification of the Kraków-Lubliniec fault zone in the Kraków area. National Geological Archives, Warsaw, Sosnowiec.

My contribution to the study consisted in the implementation and interpretation of palynological analyses from selected depth intervals. I am a co-author of the subsection entitled "Vendian (Ediacaran)" within the chapter "The results of stratigraphic and sedimentological studies" I made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 5%.

18. JACHOWICZ M., MODLIŃSKI Z., 2007 – Correlation of ordovician acritarch and graptolite assemblages in SE Lublin area. I was project manager. I made all technical and laboratory work concerning maceration and segregation of organic material for the palynological study. My percentage contribution to the authorship of the study is 80%.

F) Summary *impact factor* according Journal Citation Report (JCR): 2.919.

G) Number of citations in the - Web of Science (WoS): 129; Scopus database 250.

H) Hirscha Indeks - Web of Science (WoS): 7; Scopus 9 database.

E) Leadership of international and national research projects and participation in the projects

1999-2002 - Leader of the KBN project (9 T12B03217) - Origin and stratigraphic position of sub-Cambrian and sub-Ordovician anchimetamorphic rocks in southern Poland – a forefield of a Neoproterozoic orogen?

2006 – Leader of the project performed to the order of PGNiG entitled "Geological and geochemical analysis of Palaeozoic deposits to determine the relationship between the geological structure of the Palaeozoic basement of the Carpathians and its foreland and the distribution of hydrocarbon deposits."

2007-2010 - Leader of the MNiSW project NN 525 0510 33 – The Precambrian and Palaeozoic of the Kraków region – a model of the geological structure - its utilitarian aspect.

F) International and national awards for scientific or artistic activity

2008 - Special Award of the PGI-NRI Director for the development of "Geological and structural Atlas of the Palaeozoic basement of the Outer Carpathians and the Carpathian Foredeep" – a team award.

2009 - Award of the Minister of the Environment for outstanding research achievements in the field of conservation, design and use of the environment and its resources for the development of "Stratigraphic Table of Poland without the Carpathian region and Stratigraphic Table of Poland – the Carpathians" (co-author).

2009 - Special Award of the AASP (The American Association of Stratigraphic Palynologists) for the best poster presentation at the 42th AASP Annual Meeting Kingsport, TN, September 27-30, 2009.

2012 - Special Award of the PGI-NRI Director for research papers in 2011 - an article in the journal Geological Quarterly: "Organic microfossil assemblages from the late Ediacaran rock of the Małopolska Block, southeastern Poland", and the Ludwik Zejszner Award for the best publication of the Annales Societatis Geologorum Poloniae in 2011, entitled "Cambrian organic microfossils at the border area of the East - and West - European platforms (SE Poland and Western Ukraine)."

G) Papers presented at international and national thematic conferences

1. BUŁA Z., JACHOWICZ M., 1996 – Utwory kambryjskie bloku górnośląskiego. W: Seminar k 75 wyroci narodzeni Prof.RNDRBohuslava ruzicky, CSc. Ostrava 2-3.04.1996. Sbornik referatu: 28.

2. BUŁA Z., JACHOWICZ M., ŻABA J., 1996 – Principal characteristics of the Upper Silesian Block and Małopolska Block boreder zone. W: EUROPROBE. Transeuropean suture zone Workshop – Wrocław. Książ, 11-14 April 1996:2s.

3. BELKA Z., AHRENDT H., FRANKE W., BUŁA Z., JACHOWICZ M., 1996 – Plate tectonic evolution of the foreland of the Eastern Variscides: arguments from thermal maturation data and K/Ar age determinations on the detrital muscovites from Palaeozoic clastic rocks. W: EUROPROBE. Transeuropean suture zone Workshop – Wrocław. Książ, 11-14 April 1996:1s.
4. BELKA Z., AHRENDT H., BUŁA Z., JACHOWICZ M., 1997 – K/Ar Ages detrital muscovites in the Lower Palaeozoic of southern Poland: constraints on the evolution of the foreland of the eastern Variscides *Terra Nostra* 1997, vol. 9 Abstract Supplement 1: 147.
5. BUŁA Z., JACHOWICZ M., 1997 – Development of the Lower Paleozoic sediments in the marginal part of the Małopolska and Upper Silesian Blocks (southern Poland) *Terra Nostra* 1997, vol. 9: Abstract Supplements 1: 145.
6. BUŁA Z., JACHOWICZ M., 1997 – Dolny paleozoik bloku górnośląskiego. W: Ceske Tektonice Skupiny. Sbornik II seminare. Ostrava, 1997:9.
7. BUŁA Z., JACHOWICZ M., 1998 – Utwory dolnopaleozoiczne bloku górnośląskiego. Posiedzenia Naukowe Państwowego Instytutu Geologicznego, 54: 60-61.
8. BUŁA Z., JACHOWICZ M., 1998 - Development of Lower Paleozoic sediments in the foreland of the East European Platform (south-eastern Poland). W: Pre-Variscan terrane analysys of "Gondwanan Europe". Internationale Conference. April 28-04 May. Excursion guides and abstracts. *Schr.Staatl.Mus.Min.Geol.* Dresden 1998 nr 9:107-108.
9. JACHOWICZ M., 1998 - A palynological investigation of the Silurian marine sediments from borehole Lębork IG1 (northern Poland - eastern Pomerania). 5th European Paleobotanical and Palynological Conference, Abstracts, p. 81
10. JACHOWICZ M., 1998 - Lower Paleozoic acritarch assemblages from the Upper Silesian and Małopolska block border zone (southern Poland); 5th European Paleobotanical and Palynological Conference, Abstracts, p. 82.
11. ZALASIEWICZ J., WILLIAMS M., J.VERNIERS, JACHOWICZ M., 1998 - A revision of the graptolite biozonation and calibration with the chitinozoa and acritarch biozonations for the Wenlock succession of the Builth Wells district, Wales, U.K.Proceedings 6th International Graptolite Conference (GWG-IPA)& 1998 Field Meeting, IUGS Subcommission on Silurian Stratigraphy, Temas Geologico-Mineros ITGE, vol.23, p.141.
12. JACHOWICZ M., 1998 - Rola badań palinologicznych w geologii naftowej- przyszłość i przeszłość. Konferencja Naukowo-Techniczna, Wysowa, 1998, Materiały Konferencyjne: 66-69.
13. JACHOWICZ M., 1998 - Successions of the acritarcha assemblages in the Silurian sediments in the Eastern Pomerania (Northern Poland); CIMP Symposium and Workshops,

Programme and Abstracts, Universita degli Studi di Pisa, Dipartimento di Scienze della Terra: 15.

14. JACHOWICZ M., DZIADZIO P., 1998 - Cambrian environmental history of the NE part of the Carpathians foredeep; CIMP Symposium and Workshops, Programme and Abstracts, Universita degli Studi di Pisa, Dipartimento di Scienze della Terra, p. 40.

15. JACHOWICZ M., DYBOVA-JACHOWICZ S., WAGNER R., 1998 - Palynological research on the Upper Permian of Poland CIMP Symposium and Workshops, Programme and Abstracts, Universita degli Studi di Pisa, Dipartimento di Scienze della Terra, p. 37.

16. BUŁA Z., JACHOWICZ M., 1998 - Utwory dolnopaleozoiczne bloku górnośląskiego. Pos.Nauk PIG za okres 1.01.-31.12.1997, 54: 60-61.

17. BUŁA Z., JACHOWICZ M., 1999 - Anchimetamorphic precambrian rocks on the East-European Platform. Joint Meeting of EUROPROBE TESZ, PANCARDI, GeoRift. Dobrogea. The interface between the Carpathians and the Trans-European Suture Zone. Romain J.Tect. & Regional Geol.Vol.77 suppl.No. 1: 60.

18. NAWROCKI J., BUŁA Z., GRABOWSKI J., HABRYN R., JACHOWICZ M., JAROSIŃSKI M., JÓŹWIAK W., 2001 – Early Palaeozoic palaeogeography of the Upper Silesian Terrane (S Poland). W: Joint Meeting of EUROPROBE TESZ, TIMPEBAR, URALIDES & SW-IBERIA projects. Abstracts. Middle East Technical University Ankara-Turkey:51-52.

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20. ŻELAŻNIEWICZ A., SEGHEDE A., JACHOWICZ M., BOBIŃSKI W., BUŁA Z., CWOJDZIŃSKI S., 2001-U-Pb SHRIMP data confirm the presence of a Vendian foreland flysch basin next to the East European Carton. W: Joint Meeting of EUROPROBE TESZ, TIMPEBAR, URALIDES & SW-IBERIA projects. Abstracts. Middle East Technical University Ankara- Turkey:98-100. (

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22. JACHOWICZ M., 2006 - Palynological investigation of the Precambrian rocks on the Małopolska Block – foreland of the EEP. *CIMP Meeting, Praga 2006*

23. JACHOWICZ M., 2006 – Ordovician acritarch assemblages from the Upper Silesian Block. *CIMP Meeting, Praga 2006*
24. JACHOWICZ M., 2006 – Cambrian acritarch assemblages from the Polish part of the Brunovistulicum. *CIMP Meeting, Praga 2006*
25. JACHOWICZ M., FILIPIAK P., GILIKOVA H., HLADIL J., 2006 – The first palynological results from the low metamorphosed, late Early Devonian sandstones from the Tišnov area (Moravia, Czech Republic). *CIMP Meeting, Praga 2006*
26. JACHOWICZ M., 2007 – *I. flexuosa-C. molliculum* a new acritarch Zone from the Lower Cambrian bioturbated sandstones of the Silesian-Cracow area, Poland. *CIMP Meeting, Lisbon'2007, Joint Meeting of Spores/Pollen Acritarch Subcomissions, Abstract Vol.*
27. FILIPIAK P., JACHOWICZ M., 2007 - The New Lower Cambrian and Lower Devonian Data from the Rzeszotary Horst Area (Southern Poland) - *CIMP Meeting, Lisbon'2007, Joint Meeting of Spores/Pollen Acritarch Subcomissions, Abstract Vol.*
28. JACHOWICZ M., 2007 - Proterozoiczne (Ediakar) zespoły Acritarcha w anchimetamorficznych skałach podordowickich bloku małopolskiego. *XX Konferencja Paleontologów i Biostratygrafów PTG.*
28. FILIPIAK P., JACHOWICZ M., 2007 – Wstępne wyniki badań palinologicznych utworów kambru dolnego i dewonu dolnego w otworze wiertniczym Trojanowice 2. *XX Konferencja Paleontologów i Biostratygrafów PTG.*
30. JACHOWICZ M., 2008 - Neoproterozoiczna mikroflora anchimetamorficznych skał bloku małopolskiego. *I Kongres Geologiczny, Kraków.*
31. JACHOWICZ M., 2008 – Postęp w badaniach stratygraficznych utworów neoproterozoicznych i dolnopaleozoicznych w południowej Polsce. *I Kongres Geologiczny, Kraków.*
32. JACHOWICZ M., 2008 – Progress in palynological stratigraphic investigation of Neoproterozoic lithologies in southern Poland. *12th International Palynological Congress and 8th International Organization of Palaeobotany Conference, Bonn.*
33. JACHOWICZ M., 2008 – Early Paleozoic palynology of Brunovistulicum. *9th Czesko-Polsko-Słowacka Konferencja Paleontologiczna, Warszawa.*
34. JACHOWICZ M., TOMAŚ A., TOMAŚ A., 2008 – Neoproterozoic mikroflora from anchimetamorphic rock of Małopolska block – foreland of the East-European platform. *International Geological Congress, Oslo.*
35. JACHOWICZ M., TOMAŚ A., TOMAŚ A., 2008 – The Proterozoic-Paleozoic basement of the Polish Carpathians and its transformation. *International Geological Congress, Oslo.*

36. JACHOWICZ M., TOMAŚ A., TOMAŚ A., 2008 – Upper Paleozoic calcareous complex of the Małopolska Block in the SE Poland. *International Geological Congress, Oslo*.
37. JACHOWICZ M., 2009 - New data on the Late Ediacaran and Terreneuvian organic microfossils from the Kraków area (southern Poland). *CIMP II Joint Meeting Spores/Pollen Acritarch Subcommissions. Portugalia, Faro 2009*
38. JACHOWICZ-ZDANOWSKA M., 2009 – Precambrian and Lower Paleozoic palynology of the Carpathian foredeep basement – Małopolska block (southern Poland). 42th AASP Meeting, Kingsport, Tennessee, USA.
39. JACHOWICZ-ZDANOWSKA M., 2010 – New Middle Cambrian acritarchs from the Upper Silesia, southern Poland. *International Palaeontological Congress, Londyn*.
40. JACHOWICZ-ZDANOWSKA M., 2010 – New Cambrian palynological data from northeastern part of the Małopolska Block – foreland of the Eastern European Platform. Budapeszt.
41. JACHOWICZ-ZDANOWSKA M., 2010 – Palynological investigation of the Proterozoic-Cambrian succession in the Małopolska Block (southern Poland) - *CIMP Meeting, Warszawa*
42. DURSKA E., JACHOWICZ-ZDANOWSKA M., KOZŁOWSKI W., 2010 – Late Ludlovian palynomorphs from the Łysogóry region. *CIMP Meeting, Warszawa*
43. JACHOWICZ-ZDANOWSKA M., 2010 – Palinologia kambru dolnego bloku górnośląskiego i prekambriu w regionie krakowskim. Konferencja „*Prekambr i paleozoik regionu krakowskiego – model budowy geologicznej – jego aspekt użytkowy*”, Kraków 2010.
44. JACHOWICZ-ZDANOWSKA M., 2010 - Stop 5 – Kielce – archive grill cores. Lithostratigraphy and palynostratigraphy of the Proterozoic-Lower palaeozoic basement of the Polish Carpathians – presentation of core samples from the selected deep boreholes from southern Poland. CIMP 2010 General Meeting, Guidebook:20-31.
45. JACHOWICZ-ZDANOWSKA M., 2012 - Mikroskamieniałości organiczne kambru na pograniczu platformy wschodnio- i zachodnioeuropejskiej (SE Polska i W Ukraina). *Badania geologiczne i hydrogeologiczne na pograniczu polsko-ukraińskim*. Konferencja naukowa.
46. BUŁA Z., JACHOWICZ-ZDANOWSKA M., HABRYN R., 2012 – Geology of the Precambrian and Palaeozoic complexes of the Eastern European Platform Foreland (SE Poland and Western Ukraine). 2nd Alpine-Petrol Conference, Kraków.

I. Achievements in education and popularizing, and information on international cooperation of habilitant

A) Participation in European programs and other international and national programs

2008-2010 Work within the framework of the target project - "Petroleum exploration prospects and hydrocarbon potential of the Miocene and the Mesozoic-Paleozoic basement in the border area of the Carpathian Foredeep in Poland and Ukraine."

2011 JACHOWICZ-ZDANOWSKA M. – Research report - Mongolia. Results of palynological studies from the Hasaght region - Mongolia. - The intergovernmental program between the Republic of Poland and the Government of Mongolia.

A) Active participation in national and international scientific conference.

As K

B) National and international conferences Organizning Committee member.

1. The Secretary – X Konferencja Stratygrafia plejstocenu Polski. Rudy, 1-5 września 2003

2. The Secretary - Scientific Conference: Precambrian and Palaeozoic of the Kraków region – a model of the geological structure - its utilitarian aspect. Kraków, November 19, 2010.

Scientific conference - "Precambrian and Palaeozoic of the Kraków region – a model of the geological structure - its utilitarian aspect".

Scientific conference titled "Precambrian and Palaeozoic of the Kraków region – a model of the geological structure - its utilitarian aspect" was held on November 19, in the Carpathian Branch of PGI-NRI. The main objective of the conference was to present and explain the most important problems of the geological structure of the Precambrian and Palaeozoic succession near Kraków.

The conference was met with great interest of the scientific community. In a beautiful and modern conference room of the Carpathian Branch, there was a meeting of representatives of all the major geological institutions of Kraków: AGH University of Science and Technology, Jagiellonian University, Polish Academy of Sciences, Polish Oil and Gas Company, and Institute of Oil and Gas.

More than 90 participants listened to the following papers prepared by the staff of the Upper Silesia and Carpathian branches of PGI-NRI: "The history and development of ideas on the geological structure of the Palaeozoic and Precambrian in the Kraków region" - Dr Eng. Z. Buła, "The current model of the geological structure of the Precambrian and Palaeozoic in the Kraków region" - Dr. Eng. Z. Buła, R. Habryn MSc, Dr W. Ryłko, Dr Eng. A. Tomasz; "The significance of palynological studies for the verification of the age of Precambrian and Palaeozoic rocks in the Kraków region" - Dr M. Jachowicz-Zdanowska, "The Devonian-Carboniferous carbonate complex of the Kraków region" - Dr Eng. An. Tomasz, Dr Eng. Ad. Tomasz; "The consolidated basement of the Krakow region - main tectonic features" - Dr Eng.

W. Ryłko, Dr Eng. Ad. Tomasz, "The significance of Palaeozoic complexes for CO₂ sequestration" - Prof. J. Chowaniec, Dr Eng. Z. Buła, Dr Eng. P. Freiwald, R. Habryn MSc, Dr W. Ryłko, Dr Eng. Ad. Tomasz.

At the conference that was held within the framework of the MNiSW project No. NN 525 0510 33, great interest was directed towards the results of research in the Trojanowice 2 and Cianowice 2 boreholes, performed in the research project "Integrated program of shallow exploration boreholes to solve important problems of the geological structure of Poland", Problem 10. "Geological and structural study of the Kraków-Lubliniec fault zone in the Kraków area."

3 The Organizing Committee of the International Conference CIMP Poland 2010, General Meeting, Warsaw-Kielce.

In September 13-16, 2010, there was a CIMP (Commission Internationale de microflora du Paléozoïque) meeting in Warsaw and Kielce - General Meeting Warsaw Kielce 2010.

C.I.M.P. is an international federation of palynologists conducting research on Palaeozoic deposits. This Commission was established in 1958 at the Fourth International Congress of Carboniferous Stratigraphy and Geology in Heerlen, as a parallel group of the International Commissions of Coal Petrography and Carboniferous Stratigraphy. The task of C.I.M.P. was to create a forum for palynologists to solve the problems of preparation of organic microfossils, study of their morphology and taxonomy and the basis of palynostratigraphy of Palaeozoic deposits. The C.I.M.P. is a platform for the activity of a number of subcommissions, including acritarchs, chitinozoa and miospores. The C.I.M.P. cooperates closely with the International Federation of Palynological Societies, being one of the founding members of the organization.

On a regular basis, General Meetings of CIMP are held every four years. In 2010, such a meeting took place in Poland and was titled "Palynology and its possibilities: a record of climate and environmental changes". The meeting was scheduled for sessions of papers (in Warsaw) and field trips to the Holy Cross Mountains. The event is organized by the Institute of Geological Sciences PAS and the Polish Geological Institute.

B) Received awards other than those mentioned in Section II J

1998 - Badge - Zasłużony dla Polskiej Geologii (Merit for Geology of Poland)

2006 BUŁA Z., JACHOWICZ M. - Special Award of the PGI Director, 2006 – for a great contribution to the acquisition and management of regional geology projects.

2007 Bronze Cross of Merit

C) Participation in consortia and research networks

2011 - JACHOWICZ-ZDANOWSKA M., WRONA R. - Participation in work of the consortium "Comprehensive analysis of core material from the Lubocino-1 borehole for shale gas prospecting with a unified final documentation" – report on "Palynostratigraphical analysis of samples from the Lubocino 1 borehole based on palynomorphs - Acritarcha and Chitinozoa." – ordering company: Institute of Oil and Gas in Kraków.

D) Leadership of projects implemented in cooperation with researchers from other scientific centres in Poland and abroad, and in cooperation with businesses, other than those listed in Section II-I.

As in sections above

E) Participation in editorial committees and scientific boards of journals

2007-2013 Member of the Editorial Board of *Biuletyn Państwowego Instytutu Geologicznego* and *Prace Państwowego Instytutu Geologicznego*.

F) Membership in international and national organizations and scientific societies

Polish Geological Society - Years 1996 - 2013 Successively: member of the Main Board and the Audit Committee.

Member of CIMP - Commission Internationale de microflora du Paleozoique.

G) Achievements in education and popularization of science and art

A scenario of exhibition CAMBRIAN - Geological Museum in Warsaw.

H) Scientific guidance for students and doctors in the course of expertise

In 1995-2004 – scientific guidance of master's degree trainings at the Faculty of Earth Sciences, University of Silesia.

I) Scientific guidance for graduate students as a tutor or an auxiliary supervisor

J) Trainings in foreign and domestic research and academic centres 1992 - 9 months - Tempus Research Program - United Kingdom

M) Studies and made-to-order reports.

1. JACHOWICZ M., 1995 – Results of microfloristic investigation from Biszczka 1 borehole.
2. JACHOWICZ M., 1995 - Results of microfloristic investigation from Bystre 1 borehole.
3. JACHOWICZ M., 1995 - Results of microfloristic investigation from Cetynia 25 borehole.
4. JACHOWICZ M., 1995 - Results of microfloristic investigation from Cewków 4 borehole.
5. JACHOWICZ M., 1995 - Results of microfloristic investigation from Dachnów 1 borehole.
6. JACHOWICZ M., 1995 - Results of microfloristic investigation from Jeżowe 13 borehole.
7. JACHOWICZ M., 1995 - Results of microfloristic investigation from Komorów 3 borehole.
8. JACHOWICZ M., 1995 - Results of microfloristic investigation from Lipiny 1 borehole.

9. JACHOWICZ M., 1995 - Results of microfloristic investigation from Łętownia 1 borehole.
10. JACHOWICZ M., 1995 - Results of microfloristic investigation from Markowice 1 borehole.
11. JACHOWICZ M., 1995 - Results of microfloristic investigation from Nawsie 1 borehole.
12. JACHOWICZ M., 1995 - Results of microfloristic investigation from Zagorzyce 1 borehole.
13. JACHOWICZ M., 1996 - Results of microfloristic investigation from Biszczka 2 borehole.
14. JACHOWICZ M., 1996 - Results of microfloristic investigation from Cetynia 9 borehole.
15. JACHOWICZ M., 1996 - Results of microfloristic investigation from Dobra 4 borehole.
16. JACHOWICZ M., 1996 - Results of microfloristic investigation from Husów 28 borehole.
17. JACHOWICZ M., 1996 - Results of microfloristic investigation from Husów 32.
18. JACHOWICZ M., 1996 - Results of microfloristic investigation from Jedlinki 1 borehole.
19. JACHOWICZ M., 1996 - Results of microfloristic investigation from Malawa 3 borehole.
20. JACHOWICZ M., 1996 - Results of microfloristic investigation from Nawsie 1 borehole.
21. JACHOWICZ M., 1996 - Results of microfloristic investigation from Sarzyna 14 borehole.
22. JACHOWICZ M., 1996 - Results of microfloristic investigation from Tuligłowy 36 borehole.
23. JACHOWICZ M., 1996 - Results of microfloristic investigation from Wola Różaniecka 7 borehole.
24. JACHOWICZ M., 1997 - Results of microfloristic investigation from Biszczka 3 borehole.
25. JACHOWICZ M., 1997 - Results of microfloristic investigation from Chmielnik 1 borehole.
26. JACHOWICZ M., 1997 - Results of microfloristic investigation from Grzęska 1 borehole.
27. JACHOWICZ M., 1997 - Results of microfloristic investigation from Gubernia 7 borehole.
28. JACHOWICZ M., 1997 - Results of microfloristic investigation from Kuryłówka 12 borehole.
29. JACHOWICZ M., 1997 - Results of microfloristic investigation from Nowosielce 3 borehole.
30. JACHOWICZ M., 1997 - Results of microfloristic investigation from Potok Górny 4 borehole.
31. JACHOWICZ M., 1997 - Results of microfloristic investigation from Rączyna 6 borehole.
32. JACHOWICZ M., 1997 - Results of microfloristic investigation from Rączyna 8 borehole.

33. JACHOWICZ M., 1997 - Results of microfloristic investigation from Ryszkowa Wola 7 borehole.
34. JACHOWICZ M., 1997 - Results of microfloristic investigation from Wola Obszańska 9 borehole.
35. JACHOWICZ M., 1997 - Results of microfloristic investigation from Wola Obszańska 10 borehole.
36. JACHOWICZ M., 1997 - Results of microfloristic investigation from Zielonka 7 borehole.
37. JACHOWICZ M., 1998 - Results of microfloristic investigation from Biszcz 4 borehole.
38. JACHOWICZ M., 1998 - Results of microfloristic investigation from Czarna Sędziszowska 1 borehole.
39. JACHOWICZ M., 1998 - Results of microfloristic investigation from Czarna Sędziszowska 23 borehole.
40. JACHOWICZ M., 1998 - Results of microfloristic investigation from Kamionka 1 borehole.
41. JACHOWICZ M., 1998 - Results of microfloristic investigation from Kuryłówka 14 borehole.
42. JACHOWICZ M., 1998 - Results of microfloristic investigation from Palikówka 3 borehole.
43. JACHOWICZ M., 1998 - Results of microfloristic investigation from Rudka 8 borehole.
44. JACHOWICZ M., 1998 - Results of microfloristic investigation from Sędziszów 10 borehole.
45. JACHOWICZ M., 1998 - Results of microfloristic investigation from Śliwca 5 borehole.
46. JACHOWICZ M., 1998 - Results of microfloristic investigation from Zalesie 1 borehole.
47. JACHOWICZ M., 1999 - Results of microfloristic investigation from Bratkowice 3 borehole.
48. JACHOWICZ M., 1999 - Results of microfloristic investigation from Cetynia 4 borehole.
49. JACHOWICZ M., 1999 - Results of microfloristic investigation from Cetynia 16 borehole.
50. JACHOWICZ M., 1999 - Results of microfloristic investigation from Cetynia 17 borehole.
51. JACHOWICZ M., 1999 - Results of microfloristic investigation from Cetynia 25 borehole.

52. JACHOWICZ M., 1999 - Results of microfloristic investigation from Cewków 2 borehole.
53. JACHOWICZ M., 1999 - Results of microfloristic investigation from Cewków 4 borehole.
54. JACHOWICZ M., 1999 - Results of microfloristic investigation from Dzików 12 borehole.
55. JACHOWICZ M., 1999 - Results of microfloristic investigation from Dzików 17 borehole.
56. JACHOWICZ M., 1999 - Results of microfloristic investigation from Korzenica 1 borehole.
57. JACHOWICZ M., 1999 - Results of microfloristic investigation from Księżpol 1 borehole.
58. JACHOWICZ M., 1999 - Results of microfloristic investigation from Księżpol 7 borehole.
59. JACHOWICZ M., 1999 - Results of microfloristic investigation from Księżpol 11 borehole.
60. JACHOWICZ M., 1999 - Results of microfloristic investigation from Księżpol 12 borehole.
61. JACHOWICZ M., 1999 - Results of microfloristic investigation from Kuryłówka 15 borehole.
62. JACHOWICZ M., 1999 - Results of microfloristic investigation from Kuryłówka 16 borehole.
63. JACHOWICZ M., 1999 - Results of microfloristic investigation from Kuryłówka 18 borehole.
64. JACHOWICZ M., 1999 - Results of microfloristic investigation from Kuryłówka 19 borehole.
65. JACHOWICZ M., 1999 - Results of microfloristic investigation from Kuryłówka 20 borehole.
66. JACHOWICZ M., 1999 - Results of microfloristic investigation from Markowice 2 borehole.
67. JACHOWICZ M., 1999 - Results of microfloristic investigation from Mięgisz Nowy 3 borehole.
68. JACHOWICZ M., 1999 - Results of microfloristic investigation from Mołodycz 2 borehole.

69. JACHOWICZ M., 1999 - Results of microfloristic investigation from Palikówka 2 borehole.
70. JACHOWICZ M., 1999 - Results of microfloristic investigation from Potok Górny 5 borehole.
71. JACHOWICZ M., 1999 - Results of microfloristic investigation from Ryszkowa Wola 1 borehole.
72. JACHOWICZ M., 1999 - Results of microfloristic investigation from Strzelce Wielkie 1 borehole.
73. JACHOWICZ M., 1999 - Results of microfloristic investigation from Tarnogród 4 borehole.
74. JACHOWICZ M., 1999 - Results of microfloristic investigation from Tuligłowy 38 borehole.
75. JACHOWICZ M., 1999 - Results of microfloristic investigation from Wola Obszańska 1 borehole.
76. JACHOWICZ M., 1999 - Results of microfloristic investigation from Wola Obszańska 6 borehole.
77. JACHOWICZ M., 1999 - Results of microfloristic investigation from Wola Obszańska 8 borehole.
78. JACHOWICZ M., 1999 - Results of microfloristic investigation from Wola Różaniecka 11 borehole.
79. JACHOWICZ M., 2000 - Results of microfloristic investigation from Chałupki Dębniańskie 1 borehole.
80. JACHOWICZ M., 2000 - Results of microfloristic investigation from Dąbrowica Duża 3 borehole.
81. JACHOWICZ M., 2000 - Results of microfloristic investigation from Dzików 13 borehole.
82. JACHOWICZ M., 2000 - Results of microfloristic investigation from Dzików 16 borehole.
83. JACHOWICZ M., 2000 - Results of microfloristic investigation from Księżpol 14 borehole.
84. JACHOWICZ M., 2000 - Results of microfloristic investigation from Księżpol 15 borehole.
85. JACHOWICZ M., 2000 - Results of microfloristic investigation from Księżpol 18 borehole.

86. JACHOWICZ M., 2000 - Results of microfloristic investigation from Wola Obszańska 15 borehole.
87. JACHOWICZ M., 2000 - Results of microfloristic investigation from Dzików 15 borehole.
88. JACHOWICZ M., 2000 - Results of microfloristic investigation from Komorów 3 borehole.
89. JACHOWICZ M., 2000 - Results of microfloristic investigation from Wola Chorzewska 1 borehole.
90. JACHOWICZ M., 2001 - Results of microfloristic investigation from Dzików 19 borehole.
91. JACHOWICZ M., 2001 - Results of microfloristic investigation from Grodzisko Dolne 3 borehole.
92. JACHOWICZ M., 2001 - Results of microfloristic investigation from Jasionka 6 borehole.
93. JACHOWICZ M., 2001 - Results of microfloristic investigation from Łukowa 2 borehole.
94. JACHOWICZ M., 2001 - Results of microfloristic investigation from Stobiernia 2 borehole.
95. JACHOWICZ M., 2002 - Results of microfloristic investigation from Baranówka 2 borehole.
96. JACHOWICZ M., 2002 - Results of microfloristic investigation from Borki Górne 3 borehole.
97. JACHOWICZ M., 2002 - Results of microfloristic investigation from Dębno 2 borehole borehole.
98. JACHOWICZ M., 2002 - Results of microfloristic investigation from Jasionka 4 borehole.
99. JACHOWICZ M., 2002 - Results of microfloristic investigation from Jasionka 7K borehole.
100. JACHOWICZ M., 2002 - Results of microfloristic investigation from Jelna 2 borehole.
101. JACHOWICZ M., 2002 - Results of microfloristic investigation from Rudka 11 borehole.
102. JACHOWICZ M., 2002 - Results of microfloristic investigation from Rudka 13 borehole.
103. JACHOWICZ M., 2002 - Results of microfloristic investigation from Sarzyna 17 borehole.
104. JACHOWICZ M., 2002 - Results of microfloristic investigation from Sarzyna 18 borehole.

105. JACHOWICZ M., 2002 - Results of microfloristic investigation from Wierzbna 2 borehole.
106. JACHOWICZ M., 2002 - Results of microfloristic investigation from Wylewa 1 borehole.
107. JACHOWICZ M., 2003 - Results of microfloristic investigation from Chałupki Dębiańskie 3 borehole.
108. JACHOWICZ M., 2003 - Results of microfloristic investigation from Jasionka 8K borehole.
109. JACHOWICZ M., 2003 - Results of microfloristic investigation from Luchów 2 borehole.
110. JACHOWICZ M., 2003 - Results of microfloristic investigation from Łukowa 3 borehole.
111. JACHOWICZ M., 2003 - Results of microfloristic investigation from Paprotnia 1 borehole.
112. JACHOWICZ M., 2004 - Results of microfloristic investigation from Jasionka 9 borehole.
113. JACHOWICZ M., 2004 - Results of microfloristic investigation from Kupno 2 borehole.
114. JACHOWICZ M., 2004 - Results of microfloristic investigation from Luchów 3 borehole.
115. JACHOWICZ M., 2004 - Results of microfloristic investigation from Sarzyna 19 borehole.
116. JACHOWICZ M., 2004 - Results of microfloristic investigation from Żołyń 75 borehole.
117. JACHOWICZ M., 2004 - Results of microfloristic investigation from Żołyń 76 borehole.
118. JACHOWICZ M., 2005 - Results of microfloristic investigation from Opaka 1 borehole.
119. JACHOWICZ M., 2005 - Results of microfloristic investigation from Sieraków Nowy 1 borehole.
120. JACHOWICZ M., 2005 - Results of microfloristic investigation from Tymce 1 borehole.
121. JACHOWICZ M., 2006 - Results of microfloristic investigation from Lubliniec 9 borehole.
122. JACHOWICZ M., 2006 - Results of microfloristic investigation from Morawsko 3k borehole.

123. JACHOWICZ M., 2006 - Results of microfloristic investigation from Olchowiec 1 borehole.
124. JACHOWICZ M., 2006 - Results of microfloristic investigation from Sarzyna 20 borehole.
125. JACHOWICZ M., 2007 - Results of microfloristic investigation from Batycze 1 borehole.
126. JACHOWICZ M., 2008 - Results of microfloristic investigation from Piskorowice 3K borehole.
127. JACHOWICZ M., 2008 - Results of microfloristic investigation from Kończyce 1 borehole.
128. JACHOWICZ M., 2008 - Results of microfloristic investigation from Morawsko 4 borehole.
129. JACHOWICZ M., 2008 - Results of microfloristic investigation from Jata 1 borehole.
130. JACHOWICZ M., 2008 - Results of microfloristic investigation from Zabiała 1 borehole.
132. JACHOWICZ-ZDANOWSKA M., 2009 - Results of microfloristic investigation from Babica 1 borehole.
133. JACHOWICZ-ZDANOWSKA M., 2010 - Results of microfloristic investigation from Załazie 3 borehole.
134. JACHOWICZ-ZDANOWSKA M., 2010 - Results of microfloristic investigation from Widełka 3 borehole.
135. JACHOWICZ-ZDANOWSKA M., 2010 - Results of microfloristic investigation from Pruchnik 26 borehole.
136. JACHOWICZ-ZDANOWSKA M., 2011 - Results of microfloristic investigation from Jasionka 8 K borehole.
137. JACHOWICZ-ZDANOWSKA M., 2011 - Results of microfloristic investigation from Łopuszka Wielka 2K borehole.
138. JACHOWICZ-ZDANOWSKA M., 2012 - Results of microfloristic investigation from Kramarzówka 1 borehole.
139. JACHOWICZ-ZDANOWSKA M., 2012 - Results of microfloristic investigation from Ostrowiec 1 borehole.
140. JACHOWICZ-ZDANOWSKA M., 2011 - Results of microfloristic investigation from Machnatka 1 borehole.

141. JACHOWICZ-ZDANOWSKA M., 2012 - Results of microfloristic investigation from Lubocino 1 borehole.
142. JACHOWICZ-ZDANOWSKA M., 2012 - Results of microfloristic investigation from Kutno 2 borehole.
143. JACHOWICZ-ZDANOWSKA M., 2012 - Results of microfloristic investigation from Lubycza Królewska 1 borehole.

N) Member of experts commissions. Scientific Council Member of Polish Geological Institute

O) Reviewing of domestic and international projects.

P) Reviewing of domestic and international publications

1999 Szczepanik – The Cambrian of the western part of the Pomeranian Caledonides foreland, Peribaltic Syncline: microfloral evidence. *Geological Quarterly*.

2000 Szczepanik – The Ordovician acritarchs of the Pomeranian Caledonides and their foreland – similarities and differences. *Geological Quarterly*.

2008 Anna Żylińska – *Przegląd Geologiczny*.

2008 M. Stempień-Sałek – Palynomorphs assemblages from the Upper Ordovician in the northern and central Poland. *Annales Societatis Geologorum Poloniae*.

2006 R. Mikulaš, H. Gilíková, M. Vavrdová - Late Proterozoic to Early Palaeozoic platform deposits of the Southern Moravia (Czech Republic). *Geological Quarterly*.

2008 M. Vavrdová – Precambrian to basal Cambrian acritarchs from Měnin 1 borehole (southern Moravia, Czech Republic). *Bulletin of Geoscience*

2009 M. Vavrdová - Early Paleozoic palynomorphs from two marginal areas of Variscides: W Sudetes and S Moravia. An aspect on paleogeography. *Geologia Carpathica*.

Q) Other achievement

The elected member of the Scientific Council of the Polish Geological Institute – 2 terms – 1999-2003, 2011-2015.

