Międzynarodowa Środowiskowa Szkoła Doktorska
przy Centrum Studiów Polarnych
w Uniwersytecie Śląskim w Katowicach

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Reference No: CSP/2020/IGF/02

Title of PhD project:

Tracing Archean crust in the North Atlantic Craton (NAC) of southwest Greenland and northern Labrador

**The offer is addressed to the two PhD candidates with the planned territorial division on the southwest Greenland and northern Labrador*

Leading unit: International Environmental Doctoral School associated with the Centre for Polar Studies at the University of Silesia in Katowice (IEDS)

Mode of study: full-time

Degree to be obtained: PhD in the field of Natural Sciences, in the discipline of Earth and related environmental sciences

Duration: 4 years (8 semesters), from October 2020

Language: English

Scholarship: approx. 2370 PLN monthly (1-2nd year); approx. 3650 PLN monthly (3-4th year)

Required documents and regulations: www.mssd.us.edu.pl/kandydat-mssd/

Registration online: www.irk.us.edu.pl

Requirements:

1. MSc degree (or equivalent) in Geology, Geophysics, Chemistry, Physics, or equivalent science discipline. A candidate may submit an application if they receive an MSc Degree before September, 30, 2020.
2. Experience in both laboratory and field work.

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3. Ability to plan and organize work, efficiency in learning and adapting to new conditions.
4. Ability to work independently and as part of a team.
5. Ability to think creatively and critically.
6. Excellent networking skills in order to develop strong relationships with research partners and with academics and researchers from other institutions.
7. Good knowledge of English.

Tasks description:

1. Actively participation in preparing, organizing and conducting field work in northern Labrador.
2. Sample preparation (rock crushing, cutting, mineral separation).
3. Analytical work (petrographical, geochemical and isotope analysis).
4. Processing and interpretation of data, development and research of original ideas.
5. Preparation or contribution to publication of papers in JCR journals and conference presentations.
6. Writing regular reports on progress and presentation of the results to the project management board, according to an agreed schedule.
7. Help in the maintenance of the day-to-day work of the Department of Polar and Marine Sciences in the IGF PAN, including organization of research and responsibility for the research equipment.

Abstract

The first billion years of our planet's history is its least understood. Geological relicts of this time are limited to around a dozen domains across the Earth, of which the western margin of the North Atlantic Craton (NAC), in southwest Greenland and the northern Labrador coast, has been the focus of an increasing number of recent studies. However, field studies in the region have been scarce, with a corresponding lack of geochronological work meaning that large areas have very high potential for discoveries of early Earth crust.

The aim of the project is to fill the gaps in our knowledge of continental growth during the Archean evolution of southwest Greenland and northern Labrador. Through a combination of new field work with geochemical and U-Pb zircon geochronological analysis new information

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about Earth's early history will be unlocked, especially with respect to the formation and evolution of continental crust.

Integration of these avenues of investigation will be used to compare the geological histories of two regions (southeastern Greenland and northern Labrador) in order to search for a 'missing link' between them.

Other information:

1. The supervisors will be:
    a. dr hab. Monika A. Kusiak, monika.kusiak@igf.edu.pl, Institute of Geophysics, Polish Academy of Sciences, Warsaw
    b. Prof. Martin Whitehouse, martin.whitehouse@nrm.se, Swedish Museum of Natural History, Stockholm
2. The scholarship will be paid as a part of the Polish National Science Centre funded project in the frame of GRIEG programme.
   Information about the competition procedure for the project: https://www.ncn.gov.pl/baza-ofert/?akcja=wyswietl&id=183671 (southeastern Greenland) and https://www.ncn.gov.pl/baza-ofert/?akcja=wyswietl&id=183672 (northern Labrador)
3. Contact to Secretary of the IEDS Admission Committee: tel. +48 32 3689380, polarknow@us.edu.pl, www.mssd.us.edu.pl

Tracing Archean crust in the North Atlantic Craton of SW Greenland and N Labrador

We are looking for two PhD candidates in the fields of geochemistry and geochronology to conduct field work and analytical programmes on the geology of Labrador and Greenland. The aim of the project is to fill the gaps in our knowledge of continental growth during the Archean evolution of North Atlantic Craton. We are especially interested in the earliest evolution of continental crust.

Apply to the International Environmental Doctoral School:
https://www.mssd.us.edu.pl/en/application2020_2021/

deadline 27.08.2020

feel free to contact
monika.kusiak@igf.edu.pl