

# INTERNATIONAL GEOSCIENCE PROGRAMME (IGCP)



## Annual Report\* of IGCP Project No. 510

IGCP project short title: **A-type Granites and Related Rocks through Time**

Duration: **2005-2010 (on-extended-term-status in 2010)**

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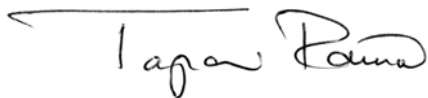
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Signature of project leader:



O. Tapani Rämö [on behalf of Roberto Dall'Agnol, Carol D. Frost, and Laurence J. Robb]

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### **1. Website address related to the project**

<http://www.igcp-510.org>

### **2. Summary of major past achievements of the project**

During the first five years (2005-2009), the project arranged six meetings with technical scientific sessions (Moscow, Idaho, USA; Belém, Brazil; Stellenbosch, South Africa; Québec City, Canada; Oslo, Norway; Tunceli Turkey) and ten field conferences (Yellowstone-Snake River Plain; southern and central Finland; Pitinga, Amazonas Sate, Brazil; Carajás, Pará State, Brazil; Bushveld Igneous Province, South Africa; southern Nevada and southeastern California, USA; Oslo Rift, southeastern Norway; Corsica, France; Cappadocian volcanic province, Turkey; Keban and Hasancelebi provinces, Turkey). The proceedings of the first Annual Meeting (Moscow, Idaho, 2005) were published as a special issue of *Lithos* (vol. 97, 1-2, 2007) and those of the second (Belém, Brazil, 2006) as a special issue of *The Canadian Mineralogist* (vol. 47, Part 6, 2009). An active international consortium of researchers from more than 40 countries working in the field of A-type granites and related rocks has been established, involvement of mining companies in the project has been enhanced, and scientific breakthroughs regarding the petrogenesis of A-type associations as well as their typology and metallogeny have been realized.

### **3. Achievements of the project this year only**

#### *3.1. List of countries involved in the project (\*countries active this year)*

Argentina\*, Australia\*, Austria, Belgium\*, Brazil\*, Cameroon, Canada\*, Colombia, Czech Republic\*, Egypt\*, Estonia\*, Finland\*, France\*, Germany\*, India, Iran\*, Ireland, Israel\*, Italy, Japan, Namibia, the Netherlands, Norway\*, People's Republic of China, Poland\*, Portugal, Republic of Korea\*, Romania, Russia\*, Slovakia\*, South Africa, Spain, Sweden, Switzerland, Taiwan, Turkey\*, Ukraine, the United Kingdom\*, the United States of America\*, Uruguay, Venezuela, Yugoslavia.

#### *3.2. General scientific achievements and social benefits*

During the final (extended term status) year, the project has continued to pursue the main goals (petrogenesis and metallogenic significance of A-type granites, granite typology and lithospheric evolution) and carried its mission successfully to completion. The highlights of the year 2010 were:

- The significance of the rapakivi granites in the A-type granite clan was thoroughly discussed at an August 2010 field trip to the *locus classicus* rapakivi granites of southeastern Finland.
- Scientists from Russia, the Far East, and Latin America were recruited to the project and they have actively participated in the activities of IGCP-510 and contributed to the proceedings volumes realized/in preparation thus far.

- The proceedings volume from the 2007 Stellenbosch symposium was published as a *Geological Society of America Special Paper* (vol. 472, 2010) (J.D. Clemens, C. Donaldson, C.D. Frost, A.F.M. Kisters, J.-F. Moyen, T. Rushmer, G. Stevens, Guest Editors).
- Papers from the May 2008 Ronald F. Emslie symposium (the fourth technical meeting of the project) were published in a special issue of *The Canadian Mineralogist* (vol. 48, Part 4, 2010) (M.A. Hamilton, J.S. Scoates, and O.T. Rämö, Guest Editors).

### 3.3. List of meetings with approximate attendance and number of countries

August 14-18, 2010: This was the twelfth scientific field trip of IGCP-510 and was led by O.T. Rämö, S. Lukkari, and A. Heinonen from the Department of Geosciences and Geography, University of Helsinki. The field trip examined new targets in the classic Wiborg rapakivi granite batholith area, both off-shore and on mainland Finland. The trip was attended by 23 participants from twelve countries (*Australia, Belgium, Brazil, Canada, Czech Republic, Estonia, Finland, France, Germany, Iran, Norway, USA*).

August 18-20, 2010: This was the sixth (and final) annual meeting (eight technical meeting) of IGCP-510. It was held at the Kumpula Campus of the University of Helsinki on August 18-20, 2010. The symposium was convened by O.T. Rämö, S. Lukkari, and A. Heinonen from the Department of Geosciences and Geography, University of Helsinki. The meeting gathered 40 researchers representing 15 countries (*Australia, Belgium, Brazil, Canada, Czech Republic, Estonia, Finland, France, Iran, Israel, Norway, Republic of Korea, Russia, USA*). 25 oral presentations (three of them keynotes) and 10 posters on various themes related to A-type granites and associated rocks were given.

### 3.4. Educational, training or capacity building activities

Doctoral and post-doctoral students from several participating countries have been actively involved in the project, thus promoting the educational aspect of the project to recruit students especially from the less developed countries.

### 3.5. Participation of scientists from developing countries, and in particular young and women scientists

A substantial fraction of the occurrences of A-type granites are located in the less developed countries (*Africa, Asia, Latin America* etc.) and the project recruited delegates also from these regions, young and women scientists in particular.

### 3.6. List of most important publications (including maps)

In 2010, 19 peer-reviewed and 2 other scientific publications were released (since the beginning of the project, 84 and 14, respectively). The publication record of the project will grow further in 2011/2012 as the proceedings volume of the concluding Helsinki symposium and individual papers currently in progress get to be published. For details, please log on to [www.igcp-510.org](http://www.igcp-510.org).

### 3.7. Activities involving other IGCP projects, UNESCO, IUGS or others

None this year.

## 4. Activities planned (pending on-extended-term-status)

### 4.1. General goals

N/A

### 4.2. Tentative list of specific meetings and field trips (please list the participating countries)

N/A

**5. Project funding requested**

N/A

**6. Request for extension, on-extended-term-status, or intention to propose successor project**

The project leadership was assigned to pursue a continuation project that will focus on a globally significant and timely granite-oriented theme (e.g., leucogranites).

**7. Financial statement (\$ USD only)**

N/A

**8. Attach any information you may consider relevant**

N/A