

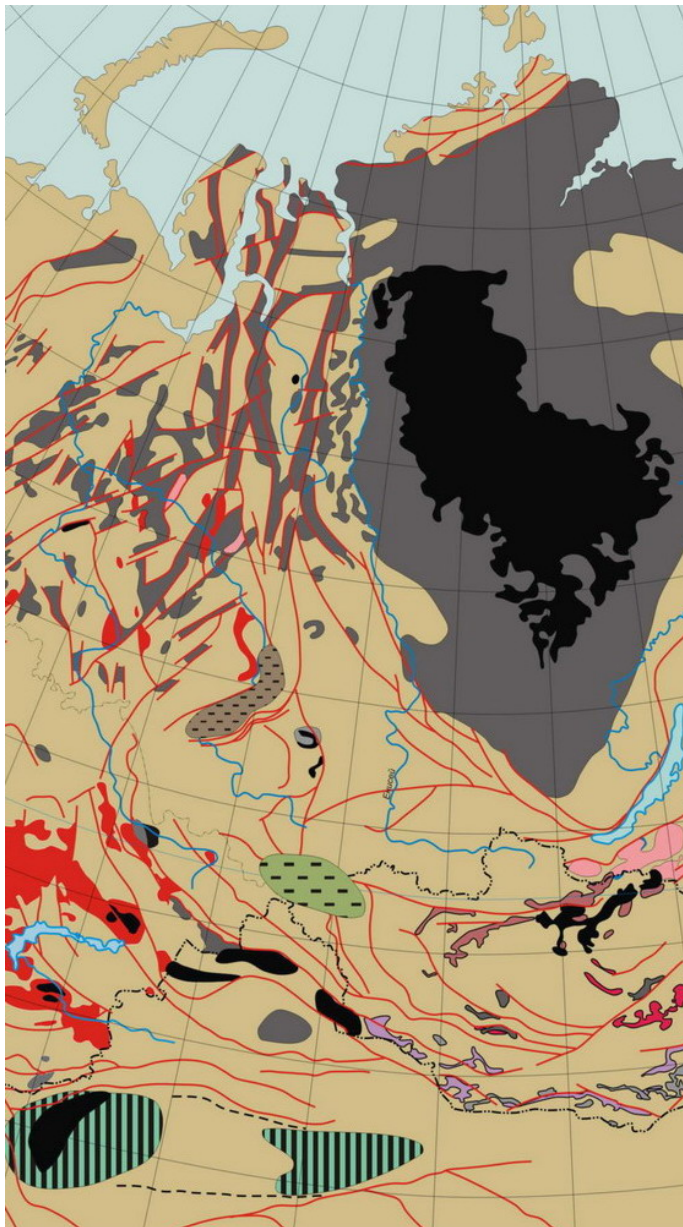


# International Symposium LARGE IGNEOUS PROVINCES OF ASIA, MANTLE PLUMES AND METALLOGENY

Organized by  
Institute of Geology and Mineralogy, Siberian Branch  
of Russian Academy of Sciences  
**13-16 August 2007, Novosibirsk, Russia**

## Final Circular & Conference Program

### Organizers and sponsors



**Siberian Branch of  
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**International Symposium**  
**LARGE IGNEOUS PROVINCES OF ASIA, MANTLE PLUMES AND**  
**METALLOGENY**

Organized by  
Institute of Geology and Mineralogy, Siberian Branch of Russian Academy of Sciences  
**13-16 August 2007, Novosibirsk, Russia**

The venue for the Meeting is the Main Building of the Institute of  
Geology and Mineralogy  
Address: Novosibirsk, Koptyuga Pr., 3.

**Conference schedule:**

**2-12 August 2007** Pre-Conference Field Trip “Metallogeny of the Southeastern Altai (Russia) and Northwestern Mongolia ore district, Permian-Triassic boundary”

**13 August 2007** Registration, Ice-breaking party

**14-15 August 2007** Opening ceremony, and Thematic Sessions (talks and posters)

**16 August 2007** Thematic Sessions, General Discussion, Closing Ceremony, Farewell Dinner (Dinner fee - 40USD, Restaurant of Scientists House)

**17-25 August 2007** Post-Conference Field Trip “Devonian, Permian-Triassic and Cretaceous magmatism (Kolyvan-Tomsk fold area, Kuznetsk and Minusa Depressions)”

The **registration fee** should be paid by cash on registration desk, and will include all meeting materials (final program, abstract volume), coffee breaks and Icebreaking Party

Dear participants,

We realize that some changes in the program above can appear, so, please, pay attention to the announcements at the stands located at the conference venue

You may address any questions related with the program to the organizing committee.

**Organizing Committee:**

International Conference

“THE LARGE IGNEOUS PROVINCES OF ASIA,  
MANTLE PLUMES AND METALLOGENY”

Koptuga ave. 3, Novosibirsk, Russia, 630090

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[lip-asia@uiggm.nsc.ru](mailto:lip-asia@uiggm.nsc.ru)

<http://www.uiggm.nsc.ru/conf/lip-asia>

## Program of the conference:

### 13 August,

9:00 – 18:00. Registration near the Conference hall of the Institute of Geology and Mineralogy

### 14 August

Conference hall of the Institute of Geology and Mineralogy

#### Plenary Session

**Leaders: N.L. Dobretsov, R. E. Ernst**

9:00 – 9:30 **Opening ceremony. Welcome address by the Vice-president of RAS, Chairman of Siberian Branch of RAS, academician N.L. Dobretsov**

9:30 – 10:00 **N.L. Dobretsov, A.G. Kirdyashkin, A.A. Kirdyashkin** Modeling of thermochemical plumes and some geological and geochemical consequences.

10:00 – 10:30 **N.P. Pokhilenko** Siberian Superplume and evidences of significant changes of composition and structure of the Siberian Platform lithospheric mantle under its influence

10:30 – 11:00 **R.E. Ernst, W. Bleeker** Status of the global LIP (Large Igneous Province) Bar-Code record and implications for reconstruction of supercontinents since the Archean

11:00 – 11:30 **A.E. Izokh, G.V. Poliakov, R.A. Shelepaev, V.V. Egorova, A.V. Lavrenchuk, E.V. Borodina, T. Oyunchimeg** Early Paleozoic large igneous province of the Central Asia Mobile Belt

11:30 – 12:00 **Coffee Break**

11:30 – 12:00 **R. Seltmann, R. Armstrong, A. Dolgoplova, D. Hennig, R.J. Herrington, B. Lehmann, A.S. Yakubchuk, H. de Boorder & CERCAMS team** Metallogeny of the Altai – identifying new terranes for the new generation of world class orebodies

12:00 – 12:30 **V.N. Sharapov, M.P. Mazurov, V.V. Riabov, Yu.V. Perepechko, Yu. R. Vasil'ev** Model analysis for ore productivity of multi-level intraplate mantle-crust systems

12:30 – 13:00 **Franco Pirajno** Zoned mafic-ultramafic intrusions in the Altay and Tian Shan orogens, NW China: implications for mantle dynamics and ore systems

13:00 – 13:30 **Zuoheng Zhang** Geological characteristics and geodynamic setting of Cu-Ni sulfide deposits of the Northern Xinjiang, China.

#### Evening Session

**Nature, age, and duration of the formation of Large Igneous Provinces (LIP) of Asia**

Conference hall of the Institute of Geology and Mineralogy

**Leaders: G.V. Polyakov, J. Mao**

14:30 – 15:00 **Tran Trong Hoa, G.V. Polyakov, A.E. Izokh, A.S. Borisenko, Ngo Thi Phuong, P.A. Balykin, Tran Tuan Anh, Pham Thi Dung** Permo-Triassic magmatism of North Vietnam in relation to Emeishan plume

15:00 – 15:20 **I.V. Gordienko, A.G. Mironov** Geodynamic and metallogenic evolution model of Riphean and Vend-Paleozoic island arcs, marginal volcano-plutonic belts and paleobasins in zone of Siberian continent and Paleo-Asian Ocean interaction

15:20 – 15:40 **I.Yu. Safonova, M.M. Buslov** Intra-plate magmatism of the Paleo-Asian and Paleo-Pacific Oceans from 600 to 140 Ma

15:40 – 16:00 **I.V. Ashchepkov, S.I. Kostrovitsky, N.V. Vladykin, A.M. Logvinova, A.Y. Rotman** Interaction of a Devonian – Lower Carboniferous kimberlite plume with the lithospheric mantle beneath Siberia

16:00 – 16:20 **Coffee Break**

16:20 – 16:40 **A.V. Mikolaichuk, V.A. Simonov, S.V. Rasskazov, Yu.D. Litasov, T.A. Yasygina** Mesozoic-Cenozoic plume magmatism of the Tian Shan

- 16:40 – 17:00 *Tran Tuan Anh, Tran Trong Hoa, A.E. Izokh., A.S. Borisenko., A.V. Travin* Permo-Triassic post-orogenic lamprophyre of South Central Vietnam: Evidence of the ending of the Indosinian Orogeny and crust-mantle interactions
- 17:00 – 17:20 *V.V. Vrublevsky, I.F. Gertner, A.E. Izokh, V.I. Krupchatnikov* Role of plume-lithospheric interaction for the generation of lamproite-type magmas
- 17:20 – 17:40 *R.M. Latypov, S.Yu. Chistyakova, T.T. Alapieti* Origin of chilled margins in mafic-ultramafic intrusive bodies.

## 15 August Morning Session

### Modeling of processes involved in the formation and development of mantle plumes, mantle-crust interaction and ore-magmatic systems

Conference hall of the Institute of Geology and Mineralogy

**Leaders: V.N. Sharapov, F. Pirajno**

- 9:00 – 9:40 *R.E. Ernst, W. Bleeker, P. Peng* The North China-superior-greater Karelia hypothesis: Late Archean-Paleoproterozoic reconstruction of cratons using their magmatic “bar-codes”
- 9:30 – 9:50 *V.I. Kosyakov, E.F. Sinyakova* Modeling of fractional crystallization of magmatic Cu-Fe-Ni sulfide liquid with platinum-group elements, Au, Ag, As, and Co impurities
- 9:50 – 10:10 *Yu.V. Perepechko, V.N. Sharapov, I.F. Rakhmenkulova* Nature of mantle sources for Perm-Triassic Traps of the Western Siberian Plate and Siberian Platform
- 10:10 – 10:30 *V.A. Simonov, I.Yu. Safonova, S.V. Kovyazin* Physico-chemical conditions of Neoproterozoic plume-related magmatism of the Paleoasian Ocean
- 10:30 – 10:50 *M.P. Mazurov, V.N. Sharapov* Dynamics of metasomatic processes for ore-magmatic systems of the southern part of the Siberian Platform
- 10:50 – 11:10 **Coffee Break**
- 11:10 – 11:30 *V.N. Sharapov, Yu.V. Perepechko* Granitoid magma origin under continental plates adjacent
- 11:30 – 11:50 *M.L. Fiorentini, S.W. Beresford, E. Deloule, W.E. Stone, E. Hanski, N.J. Pearson* The role of mantle-derived volatiles in the petrogenesis of Paleoproterozoic ferropicrites and associated Ni-Cu-PGE deposits in the Pechenga complex, Northwestern Russia: insights from in-situ microbeam and nanobeam analysis of hydromagmatic amphibole (**Presented by F. Pirajno**)
- 11:50 – 12:10 *E.V. Borodina* Petrological modeling of Siberian flood basalts and differentiated intrusions (Talnakh intrusion and Talnakh lava flows as examples)
- 12:10 – 12:30 *V.V. Vrublevsky, I.F. Gertner* The evolution of alkaline mafic-ultramafic and carbonatitic magmatism on the margin of Siberian Paleocontinent
- 12:30 – 12:50 *V.A. Kutolin, V.A. Shirokikh* The upper mantles websterite model and origin of Large Igneous Provinces

## Evening Session

### Petrologic – geochemical aspects of formation of LIP in Asia

Conference hall of the Institute of Geology and Mineralogy

**Leaders: A.E. Izokh, M.K. Reichow**

- 14:30 – 15:00 *E.V. Sharkov, O.A. Dyuzhikov* Large igneous provinces of Northern Eurasia and their PGE-Cu-Ni ore deposits
- 15:00 – 15:20 *S.B. Brandt, S.V. Rasskazov, I.S. Brandt, E.V. Saranina, N.N. Fefelov* Conjugate holmes-houtermans and concordia-discordia model for common lead: application for ore-generation processes in the south of Eastern Siberia
- 15:20 – 15:40 *M.K. Reichow, M.S. Pringle, G.S. Fedoseev, I.Yu. Safonova, I.L. Millar, M.M. Buslov and A.D. Saunders* New geochemical data and high-precision  $^{40}\text{Ar}/^{39}\text{Ar}$  ages from the Kuznetsk Basin: An extension of the Siberian large igneous province

- 15:40 – 16:00 **I.A. Zhukova, L.M. Zhitova, A.S. Borisenko** Crust contamination of mantle melts as a factor of origin productive PGE-sulfide mineralization in layered basic intrusions: He isotope data evidence
- 16:00 – 16:20 **Coffee Break**
- 16:20 – 16:40 **V.A. Simonov, S.V. Kovyazin** Petrogenesis of the Plume Picrite Complexes in the Turkestan Paleoocean
- 16:40 – 17:00 **A.V. Prokopiev, J. Toro, E.L. Miller, A.G. Bakharev, V.A. Trunilina, J. Wooden, A.A. Surnin** Granitoids of the Main Batholith Belt and volcanics of Uyandina-Yasachnaya Arc (Northeast Asia): new U-Pb SHRIMP geochronological and geochemical data
- 17:00 – 17:20 **T.A. Osipova** The geochemistry features of the rare-metal granites of the East Slope of the Ural
- 17:20 – 17:40 **L.V. Solovjeva** Fluid-magmatic effect of the middle Paleozoic Plume on the mantle lithosphere of the Siberian Craton – geochemical consequences
- 17:40 – 18:00 **A.A. Sorokin, A.B. Kotov, N.M. Kudryashov** Geochronology of early Mesozoic granitoids in the southern framing of the eastern part of Mongolian-Okhotsk Foldbelt

## 16 August Morning Session

### Metallogenic specialization of LIP and the role of mantle plumes in the formation of large and unique Cu-Ni-Pt, Ni-Co-As, porphyry Cu-Mo, Hg, Au-Hg, and rare metal deposits of Asia

Conference hall of the Institute of Geology and Mineralogy

#### **Leaders: A.S. Borisenko, R. Seltmann**

- 9:00 – 9:30 **G.V. Polyakov, A.E. Izokh, A.S. Borisenko** Permian ultrabasite-basite magmatism and accompanying Cu-Ni mineralization of Gobi-Tien Shan belt as a result of the Tarim mantle plume display
- 9:30 – 9:50 **V.V. Ryabov** Geodynamic control of trap magmatism and ore-formation (Siberian Platform)
- 9:50 – 10:10 **E.G. Distanov, I.V. Gaskov, K.R. Kovalev** Massive sulphide base metal deposits related to mantle plumes and subduction geodynamics at the Central-Asian Mobile Belt (Southern Siberia)
- 10:10 – 10:30 **A.D. Nozhkin** Magmatism and metallogeny (U, Au) of the Late Proterozoic rifts structures of the SW North-Asian Craton
- 10:40 – 11:00 **A.A. Obolenskiy, A.S. Borisenko, E.A. Naumov, I.G. Tretjakova** Ore-forming systems of Ni, Co-As; Au-Hg and Hg deposits within the framework of mantle plume metallogeny
- 11:00 – 11:20 **Coffee Break**
- 11:20 – 11:40 **F.A. Usmanov, S.T. Maripova, O.A. Yuldashev, A. Akabirov, S.R. Kasymova** Metallogeny and genesis of large and superlarge gold deposits of Western Tien Shan
- 11:40 – 12:00 **I.Yu. Annikova, V.S. Antipin, A.G. Vladimirov, S.Z. Smirnov, S.V. Khromykh** Provinces of Elvan-Ongonite magmatism and associated rare-metal-magmatic systems in Southern Siberia
- 12:00 – 12:20 **A.S. Borisenko, G.G. Pavlova, V.A. Goverdovsky, A.V. Travin** Ar-Ar dating of the Ag-Sb ore and igneous rocks
- 12:20 – 12:40 **L.M. Zhitova, A.A. Borovikov, I.A. Zhukova and A.S. Borisenko** Fluid phase separation resulting in different types of PGE-sulfide mineralization for layered basic intrusions
- 12:40 – 13:00 **A.P. Berzina, A.S. Borisenko** Porphyry Cu-Mo mineralization and mantle plumes
- 13:00 – 13:20 **O.A. Dyuzhikov** Siberian superplume: the largest and unique PGE-Cu-Ni deposits of the Taimyr-Norilsk region

## Evening Session

Conference hall of the Institute of Geology and Mineralogy

- 14:30 – 16:00 **Poster session**
- 16:00 – 17:00 **General discussion, Closing Ceremony**
- 18:00 – **Farewell dinner** (fee - 40USD, Restaurant of Scientists House)

## GENERAL INFORMATION:

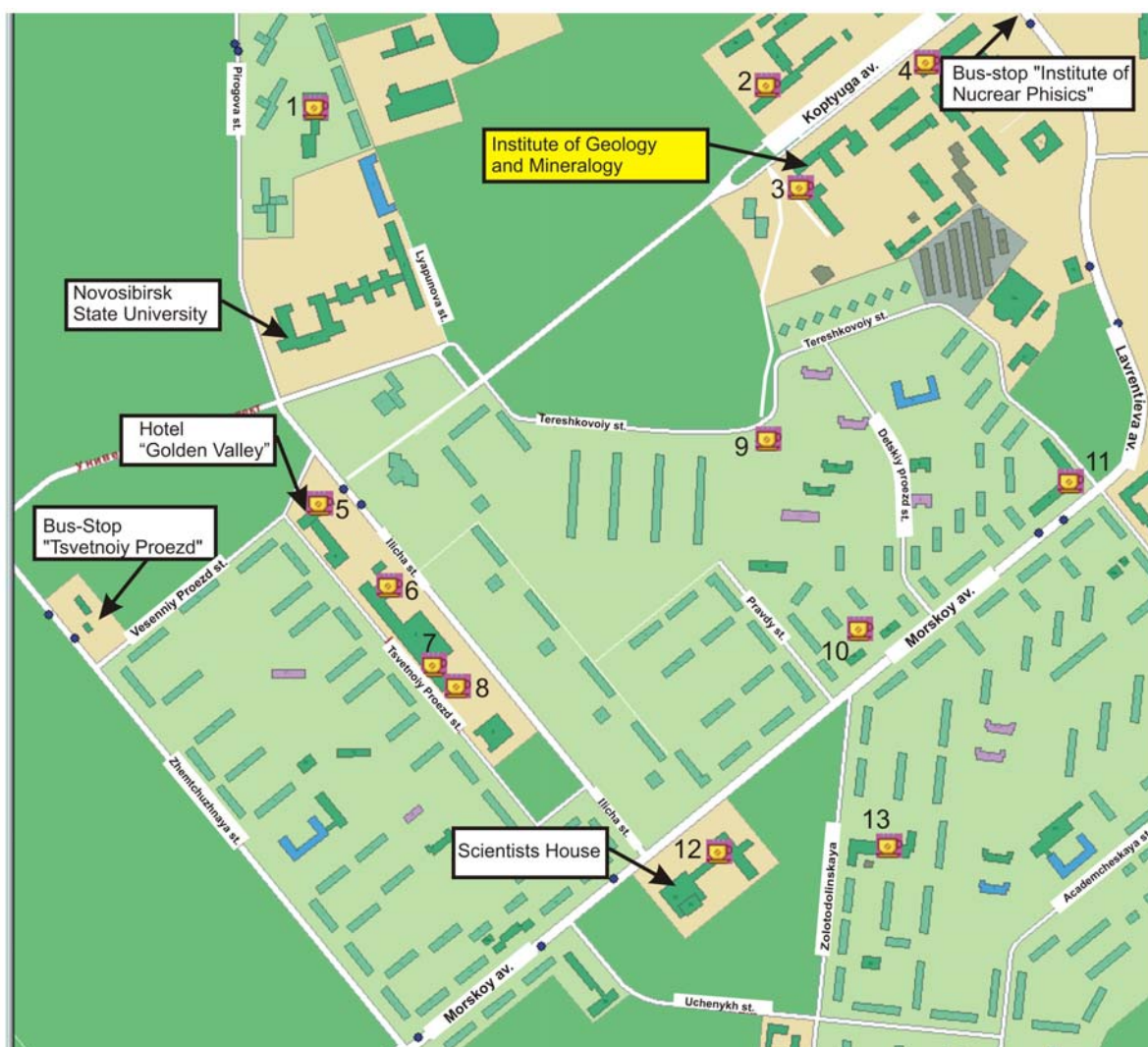
**Weather:** The conference period is characterized by moderate to high (20-30°C = 68-86°F) temperatures with moderate precipitation. Current conditions are available through these links [http://weather.yahoo.com/forecast/Novosibirsk\\_RS\\_c.html](http://weather.yahoo.com/forecast/Novosibirsk_RS_c.html)

**Accommodation:** For all participants the rooms have been booked in Hotel “Zolotaya Dolina” (Golden Valley) <http://gold-valley.ru/>

### Current exchange rate in Novosibirsk:

1 USD = 25.2 Rubles

1 Euro = 34.8 Rubles



Scheme of Akademgorok.

1. Canteen of Novosibirsk State University
2. Canteen of Mathematics Institute
3. Canteen of Institute of Automation
4. Canteen of Institute of Geology and Mineralogy
5. Restaurant of “Golden Valley” hotel
6. Cafe “Vostok-Zapad”
7. Fast-food “Vilka-Lozhka”
8. Restaurant “Zhily-Biily”, Russian kitchen
9. Grill-Bar “Peoples”
10. Cafe “V shokolade”
11. Cafe “Travelers”
12. Restaurant of Scientists House
13. Restaurant “TBK-Lounge”