

# LERM 2003

International Symposium on

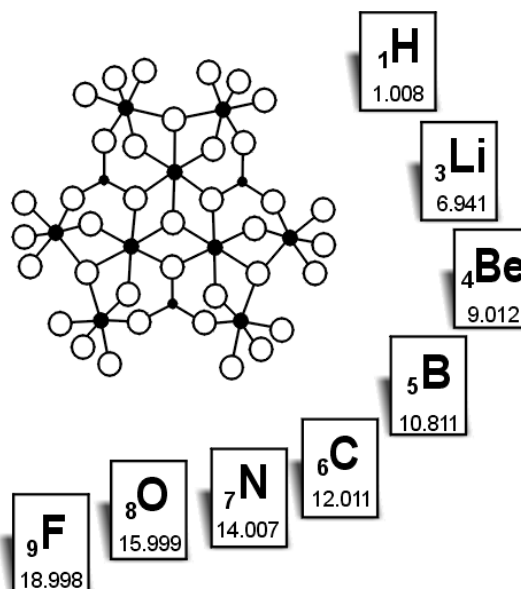
## *Light Elements in Rock-forming Minerals*

organized by

*Masaryk University, Brno, Czech Republic*  
*University of Vienna, Vienna, Austria*  
University of Manitoba, Winnipeg, Canada  
*Czech Geological Society*

and sponsored by

*European Mineralogical Union*



## Final circular

### Symposium programme

- Thursday (June 19)** since 14:00 - Registration  
20:00 - Ice-breaker party
- Friday (June 20)** 7:00 - 12:00 - Registration  
10:00 - Opening ceremony  
10:30 - 17:30 – Sessions, incl. poster session
- Saturday (June 21)** 9:00 - 17:00 – Sessions, incl. poster session  
20:00 - Special conference dinner
- Sunday (June 22)** 9:00 - 15:00 – Sessions, incl. poster session  
15:00 - Closing ceremony

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- Monday (June 23) - Wednesday (June 25) :** Field trip
- Wednesday (June 25) :** arrival to **Praha airport** approx. at **16 pm**  
arrival to **Skalsky dvur** approx. at **19 pm**

## Venue and travel information

### Venue and accomodation

The conference takes place at the **Hotel Skalský dvůr** near Nové Město na Moravě, western Moravia, Czech Republic (the same place as on the symposium "Tourmaline 1997"). For details see the LERM 2003 internet page. Accommodation is provided in double rooms (TV, en suite WC and shower). One person in double room: plus 7 Euro per night. The hotel accepts a variety of credit cards (American Express, VISA, EuroCard, MasterCard, JCB, Dinner's Club).

### *Social program*

Thursday (June 19) 20:00 - Ice-breaker party  
Saturday (June 21) 20:00 - Special conference dinner

**Hotel services** will be fully available for symposium participants, eg. sauna with outdoor swimming-pool, indoor swimming-pool, fitness, massages, tennis, table tennis, Russian pins, electronic darts, etc., see the hotel web page at [http://www.skalsky-dvur.cz/e\\_index.htm](http://www.skalsky-dvur.cz/e_index.htm)

**Special program for accompanying persons** (trips on nearby Pernštejn gothic castle, UNESCO-protected church on Zelená Hora in Žďár nad Sázavou, Škrdlovice glass works, etc.) can be provided on the place of symposium, for fee cca 10-15 euro.

### Travel to Skalský dvůr

**Drivers:** Detailed road map of the Czech Republic is available at <http://mapy.atlas.cz> Printed road maps are available on all petrol stations in the Czech Republic. Hotel Skalský Dvůr is located cca. 5 km E from Nové Město na Moravě and cca. 7 km NW from Bystřice nad Pernštejnem, close to the village Lísek.

Vienna and Praha are the nearest international airports with many trans-Atlantic or trans-continental flights. Praha has a direct express train-service to Žďár nad Sázavou, the railway station closest to Skalský dvůr. A shuttle bus will be arranged from this station. For travel from Vienna, use express train to Brno and change train to Žďár nad Sázavou.

The participants arriving by train should buy their **tickets** to the **railway station**

### Žďár nad Sázavou

Organizers will wait participants in time they have specified in their registration or during the registration refinement. The shuttle bus will be provided on Thursday (departure at 17:00 and 19:00); in any other time specified in registration the organizers will wait for participants with minibuss or car.

In case of **delays** or **problems en route**, you can **contact us** at mobile telephone number (+420) 732 565 881 (operator T-Mobile CZ) or, alternatively, through the hotel reception desk, tel. (+420) 566 591 511.

### Travel from LERM

To all participants leaving on Sunday or Monday morning, organizers will provide a transport to Žďár nad Sázavou railway station. Monday morning departure to Žďár n.S.: 7:45 am (trains at 8:31 to Brno, at 9:43 to Praha).

## Changing on the train in Praha

Praha airport is situated approximately 18 kilometres from the city centre. Air travellers can take a **taxi**. It is approximately a 30-45 minutes drive, costing about **750 CZK (cca. 24 EUR)**. It is recommendable to settle the price with the transportation desk in the Arrivals hall of the airport or with the taxi driver beforehand.

**An airport taxi** - company FIX s.r.o. - station in front of the north terminal hall. Fix rate 120 - 870 CZK (depending to price zones). Maps showing zones are available at the FIX counter - north terminal - arrivals and in every car. The travel to the "Hlavní nádraží" (Main railway station) costs **560 CZK (cca. 18 EUR)**. Payment is directly to the driver at destination.

Alternatively, the **airport shuttle buses** may be used. The cost is about **3 EUR (90 CZK)**. The bus will bring you to the city centre - Dejvická underground station or to "Náměstí Republiky" square, which is about 2 blocks (400 m) far from the "Praha - Hlavní nádraží" (Praha - Main Railway Station).

**Public transport** is also available by bus no. 119 to the Dejvická underground station (last stop) from where you can continue

- a) by underground (line A) to Museum station. Here you must change to line C and continue to "Hlavní nádraží" station.
- b) or by tram no. 26, to the Hlavní nádraží (11th stop)

This journey takes about 50 minutes. You will need to buy a ticket for **12 CZK (approx. 0.4 EUR)**, it is valid for 60 minutes on all underground, bus and tram lines. Tickets are not sold on buses or trams and must be purchased in advance.

For a short walking trip in Praha, you can leave your luggage in left-luggage office on the Main railway station. City plans and tourist guides in many languages (English, German, French, Russian, Spanish, etc.) are commonly available in shops or in tourist information centres.

## Changing the train in Brno

The Brno – main station is rather small, compared to that in Praha. It takes about 5 minutes to change the train, just pass the underground to the main entrance hall and find the platform number of your train on the information table. If you have missed your train, trains to Žďár nad Sázavou (heading Praha **via Havlíčkův Brod**) are leaving approx. every 2 hrs.

## Currency

The currency valid in the Czech Republic is the Czech crown, CZK, with an approximate exchange rate 1 EUR ~ 31 CZK, 1 USD ~ 26.5 CZK, 1 CAD ~ 19.5 CZK, 1 NOK ~ 3.85 CZK. Exchange offices are commonly available in Praha and Brno, not at Žďár nad Sázavou railway station. No possibility of exchange in the hotel, but the hotel accepts a variety of credit cards (American Express, VISA, EuroCard, MasterCard, JCB, Dinner's Club).

## Weather

Weather in the end of June is commonly mild, rather dry and sunny but with potential rain; even heavy rain is possible. Highs of 25 °C are common, ~ 30 °C possible. As the evening and night temperatures can be as low as 10 °C, it is recommended to have a fleece jacket or anorak. Hard boots for excursion are not necessary but recommended; raincoat is necessary.

## Symposium scientific programme information

### Presentation information

The length of a normal talk will be 20 minutes (15 minutes talk + 5 minutes discussion). Thematic talks will be 30 or 45 minutes depending of the author's demand. The talks will be followed by afternoon or evening poster sessions during which refreshments will be served.

The lecture hall will be equipped by two slide and one overhead projectors, together with a data projector. The latter having resolution  $800 \times 600$  will be connected to a laptop with a CD, running Windows 2000 and Microsoft Office 2000. **Please note that** the correct function of presentation saved in the format PowerPoint XP or PowerPoint for Macintosh cannot be guaranteed.

### Publications

Papers presented at the symposium will be published in the "Book of Abstracts". The journals *Mineralogy and Petrology* and *Journal of the Czech Geological Survey* expressed the interest in the publication of selected papers from this symposium. Deadline for submission of manuscripts (Mineralogy and Petrology): end of September 2003.

### LERM 2003 scientific programme (preliminary)

Friday, June 20	
10:00	Opening Ceremony
10:30 - 11:15	<b>Luisa Ottolini:</b> Quantitative analysis of H, Li, Be and B in silicates by SIMS
11:15 - 11:35	<b>Horst R. Marschall:</b> The Low-Boron-Contest: eliminating surface contamination and analysing B concentrations at the ppb-level by Secondary Ion Mass Spectrometry
11:35 - 11:55	<b>Anne Feenstra:</b> Chemical zoning of light (H, Li) and bivalent elements in zincostaurolite from a high-P, low-T diaspore-bearing metabauxite from E-Samos, Greece: an EMP and SIMS study
12:00 - 14:00	Lunch
14:00 - 14:45	<b>Joseph Evensen:</b> New tools for aluminous restites and granitic pegmatites, the beryllium sinks
14:45 - 15:05	<b>Rainer Altherr:</b> Li-Be-B systematics of orogenic peridotites
15:05 - 15:25	<b>Rune B.Larsen:</b> Distribution of light elements in granitic pegmatite quartz
15:25 - 16:00	<b>Matthew C. Taylor:</b> Magmatic hydrogels: their formation, evolution, transport and deposition as silicate and rare-element minerals
16:00 - 16:20	Coffee break
16:20 - 17:30	Poster session I.
18:00	Dinner
Saturday, June 21	
9:00 - 9:45	<b>Joel Grice:</b> Light element analysis by crystal-structure methods
9:45 - 10:05	<b>Gianluca Iezzi:</b> Synthesis, crystal structure and crystal-chemistry of ferriclinoholmquistites, $\square \text{Li}_2 [(\text{Mg,Fe})^{2+}_2\text{Fe}_3] \text{Si}_8 \text{O}_{22}(\text{OH})_2$
10:05 - 10:25	<b>Frédéric Hatert:</b> The crystal chemistry of lithium in the alluaudite structure

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<b>10.25 - 10.40</b>	Coffee break
<b>10.40 - 11.00</b>	<b>Karel Breiter:</b> Chemistry of Phosphorus-rich Topaz
<b>11.00 - 11.20</b>	<b>Friedrich Koller:</b> Variation of Li-, Be-, Rb-, and Sn-contents in Micas from Variscan Granites of the South Bohemian Pluton
<b>11.20 - 11.40</b>	<b>Stanislav Houzar:</b> Fluorine-bearing mineral assemblage from marbles in exocontact of the Třebíč Massif
<b>11.40 - 12.00</b>	<b>Petr Sulovský:</b> Occurrence of new (U, Y, REE) Ca fluorocarbonates in the sandstone-hosted uranium deposit at Osečná, North Bohemian Cretaceous Basin
<b>12.00 - 14.00</b>	Lunch
<b>14.00 - 14.45</b>	<b>Eugen Libowitzky:</b> Hydrogen and hydrogen bonds in minerals
<b>14.45 - 15.05</b>	<b>Martina Halmer:</b> Detecting OH defects in iron-bearing ( <sup>IV</sup> Fe <sup>2+</sup> ) spinel phases by IR spectroscopy
<b>15.05 - 15.25</b>	<b>Yves Fuchs:</b> Combined spectrographical studies of dumortierite
<b>15.25 - 15.45</b>	<b>Alfred Bashenov:</b> Fluorine in amphiboles of the Ilmenogorsk alkaline massif (the South Ural, Russia) and its surroundings
<b>15.45 - 16.00</b>	Coffee break
<b>16.00 - 17.00</b>	Poster Session II.
<b>20.00</b>	Special conference dinner

**Sunday, June 22**

<b>9.00 - 9.20</b>	<b>Pavel Uher:</b> Tourmaline group: compositional, lattice and physical parameter relations - a base of new classification proposal
<b>9.20 - 9.40</b>	<b>Darrell Henry:</b> Fluorine – X-site vacancy avoidance in natural tourmaline
<b>9.40 - 10.00</b>	<b>Jan Cempírek:</b> Mineral assemblages and chemical composition of Al-rich tourmaline from abyssal pegmatites of the Bohemian Massif
<b>10.00 - 10.15</b>	Coffee break
<b>10.15 - 10.35</b>	<b>Federico Pezzotta:</b> Boron isotope systematics and petrologic inferences of high-evolved pegmatites of the Itremo Group, Central Madagascar
<b>10.35 - 10.55</b>	<b>Igor Broska:</b> Tourmaline in the specialized S-type granites and their wall rock: composition and tectonic implications
<b>10.55 - 11.15</b>	<b>Andrea Dini:</b> Boron and oxygen isotopic composition of granitic, pegmatitic and hydrothermal tourmalines from the Tuscan Magmatic Province, Italy
<b>11.15 - 11.35</b>	<b>Jan Filip:</b> Tourmaline-bearing versus axinite-bearing veins within metabazite zone, Brno batholith, Czech Republic; role of CO <sub>2</sub>
<b>11.35 - 11:55</b>	<b>Milan Novák:</b> Distinctive compositional trends in Fe-rich tourmaline from granitic rocks; crystal-structural role Li and F
<b>12.00 - 14:00</b>	Lunch
<b>14:00 - 15.00</b>	Poster session III.
<b>15.00</b>	Closing Ceremony

## Poster sessions

The talks will be followed by an evening poster session (poster installation on the morning, before the start of sessions), where posters will be exhibited and during which refreshment will be served. The size of a poster board is 115 cm in height and 155 cm in width. The special pins needed to attach the posters to the boards will be provided on spot.

### Poster session I. (Friday, June 20: 16:20 - 17:30)

- V.Yu. Prokofev, **M.S. Alferova**, S.Z. Smirnov: The boron concentration in mineral-forming fluids of beryl-bearing cavities of pegmatite Mokrusha vein (Urals)
- Belkovskiy A., Belkovskaya J., Krinari G.**: Lithium and fluorine in the rock-forming phlogopite-annites from metamorphical blocks of the Urals (Russia)
- Belkovskiy A., Belkovskaya J., Belogub E.**: Lithium and fluorine in the hydration products of ferromagnesian trioctahedral micas
- Gil-Crespo, P.P., Pesquera, A. and Torres-Ruiz, J.**: Petrographic evidence of multistage recycling of B in the Martinamor Antiform (Central Iberian Zone, Salamanca, Spain)
- Kaliwoda M., Altherr R.**: Li-Be-B systematics of mantle xenoliths from Harrat Uwayrid (Saudi Arabia)
- Marks, M. and Markl, G.**: Li-rich amphiboles from peralkaline to agpaitic igneous rocks of the Mid-Proterozoic Gardar Province, South Greenland.

### Poster session II. (Saturday, June 21: 16:00 - 17:00)

- Borovikova E., Kurazhkovskaya V.S., Alferova M.S.**: Structural position and role of H, F and B in vesuvianite.
- Ertl A., Hughes J.M.**: Tetrahedrally-coordinated boron in liddicoatite from Madagascar
- John M. Hughes, Andreas Ertl, and Stefan Prowatke**: Mn-rich tourmaline from the Moldanubicum in Austria: structure and chemistry
- Iezzi G., Cámara F., Della Ventura G., Oberti R., Beny J.M.**: Long-range and short-range order in synthetic leakeite,  $\text{Na Na}_2 (\text{Mg}_2\text{Fe}^{3+}_2\text{Li}) \text{Si}_8 \text{O}_{22}(\text{OH})_2$ , at different P, T,  $f\text{O}_2$  conditions
- Z. Losos, A. Beran**: Hydrogen traces in genetically different cassiterites
- Johnson E.A., Rossman G.R.**: Determination of hydrogen in feldspars by IR and NMR spectroscopy

### Poster session III. (Sunday, June 20: 14:00 - 15:00)

- Kubiš M., Broska I., Bednarik M., Uher P.**: Boron and fluorine distribution in the evolved granitic rocks from Hnilec area (Western Carpathians, Gemeric Superunit)
- Pieczka A., Golebiowska B., Ilnicki S., Dzierzanowski P., Jezak L.**: Gadolinite group minerals from Szklarska Poreba (SW Poland, Lower Silesia, Karkonosze Mts)
- E. Roda-Robles, A. Pesquera, P. P. Gil, J. Torres-Ruiz, F. Fontan**: Chemical and mineralogical evolution of the Li-F-Be-B-P-bearing Pinilla pegmatite, (Central Iberian Zone, Zamora, Spain)
- Pieczka A., Golebiowska B., Skowronski A.**: Ferrisicklerite and other phosphate minerals from the Lutomia pegmatite (SW Poland, Lower Silesia, Góry Sowie Mts)
- Novák M., Selway J.B., Škoda R.**: Tourmaline from the NYF pegmatites; example from the Třebíč massif
- Šrein V., Štastný M., Hloušek J.**: The tin-boron mineralisation in the magnetite skarns of the Krušné Hory Mts.

## Post-conference field trip (Monday, June 23 – Wednesday, June 25)

The post-symposium field trip will be organized from June 23<sup>rd</sup> to 25<sup>th</sup>. The fee includes two nights with breakfast, transport, field trip guidebook, 3 lunches, 1 dinner; dinner in medieval town Kutná Hora is not included to give the participants a chance to visit local restaurants.

### Day 1

Departure Skalský dvůr at 9:00 a.m.

- Locality 1** Sedliště near Polička - Calcite-dolomite marble. Minerals of interest : *uvite*, *dravite* (OH, F)
- Locality 2** Nedvědice I - Muscovite-tourmaline orthogneiss. Minerals of interest : *muscovite*, *biotite* (Li, F, OH), *fluor-schorl* (Li, B, F, OH)
- Locality 3** Nedvědice II - Metamorphosed Ca-skarn. Minerals of interest : *vesuvianite* (F), *calcite* (C, O isotops)
- Locality 4** Věžná near Nedvědice - Beryl pegmatite. Minerals of interest : *cordierite*, *beryl* (Be, Li, H<sub>2</sub>O), *dravite* (B, Li, OH, F)
- Locality 5** Rožná near Bystřice nad Pernštejnem - Lepidolite pegmatite. Minerals of interest : *muscovite*, *trilithionite*, *polyolithionite* (Li, Be, B, OH, F)

Accommodation Skalský dvůr

### Day 2

Departure Skalský dvůr at 8:30 a.m.

- Locality 6** Horní Bory near Velké Meziříčí - Migmatite. Minerals of interest : *cordierite* (Be, Li, CO<sub>2</sub>, H<sub>2</sub>O), *dravite* (Li, B, OH, F)
- Locality 7** Lavičky near Velké Meziříčí - Leucocratic granite, barren pegmatite, quartz-dravite vein. Minerals of interest : *schorl*, *foitite*, *dravite* (B isotops)
- Locality 8** Vlastějovice near Zruč nad Sázavou - Metamorphosed Fe-skarn, barren pegmatite with fluorite. Minerals of interest : *grossular-andradite* (F, OH), *titanite* (F, OH), *hastingsite* (F, OH), *fluorite*

**Arrival** to Kutná Hora approx. at **16 pm**, accommodation in **Hotel Mědínek, Kutná Hora**.

**Individual program** and **dinner** in medieval town of Kutná Hora.

### Day 3

Departure Kutná Hora at 8:30 a.m.

- Locality 9** Starkoč near Čáslav - Biotite gneiss, barren pegmatite. Minerals of interest : *almandine* (OH), *dumortierite* (B)
- Locality 10** Přibyslavice near Čáslav - Leucocratic granite, pegmatite. Minerals of interest : *almandine* (OH), *schorl* and *oxy-schorl* (B, O, OH, F), *staurolite* (Li, OH), *muscovite*, *biotite* (Li, OH, F), *dumortierite* (B)

**Arrival Praha airport** (railway station(s)) at **16:00** and about at 19:00 arrival to **Skalský dvůr**.

**We are looking forward to welcome you in the Czech Republic, on LERM 2003 symposium. Wishing you safe journey to the Czech Republic!**

*The Organizing Committee*