

A JOURNEY THROUGH ROCK CRYSTALS AND ICE THE REMARKABLE GEOLOGICAL HISTORY OF THE MONT-BLANC MASSIF

## DESCRIPTION OF THE EXCURSION

The Mont-Blanc range offers magnificent landscapes which are an open window on the  $\geq$  300 Ma long geological history of the area. The present-day fate of the glaciers under the changing climate is also spectacular. The area is also famous for the "cristal de roche" which has been collected in the mountains for over 300 years, and is the main focus of a mineralogy museum. The field trip will guide you in these spectacular landscapes with a glimpse of the geological and climatic history and includes a private visit to the new mineralogy museum. **Organizer: Philippe Hervé Leloup, Laboratoire de Géologie de Lyon LGLTPE** 

## FEES INCLUDE

- Transport by 9 seat minibus (round trip)
- Accommodation in twin room
   Les Campanules www.hotel-campanules.com
- Pension: dinner, picnic, breakfast (except lunch on July 23<sup>rd</sup> and dinner on July 25<sup>th</sup>)
- Museum ticket
- Cable cars and train

### PRATICAL INFORMATION

- Departure from tram stop "Université Lyon 1" Tram stop T4 – T1
- Departure July 23, at 8.00 am
- Return July 25, arrival at ca. 7.00 pm
- One day includes a three-hour hike

(+250 m of climbing at 2300 m of altitude) at the foot of the Aiguilles de Chamonix to reach the famous Mer de Glace that will be supervised by professional guides. This section can possibly be avoided by taking a cable car and a rack and pinion train if requested at the time of registration.

# FEES DO NOT INCLUDE

• Lunch on July 23rd and dinner on July 25th



Quartz « fumé » from Mont-Blanc massif ©Musée de mineralogie de Chamonix



MINIMUM NB. OF PARTICIPANTS: 6 MAXIMUM NB. OF PARTICIPANTS: 24 with the minimum nb. of 6 per bus

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FULL-REFUND GUARANTEE IN CASE OF CANCELLATION BY THE ORGANIZERS









# ADDITIONAL DESCRIPTION

A JOURNEY THROUGH ROCK CRYSTALS AND ICE

#### THE SCHEDULE MAY BE ADAPTED AT ANY TIME GIVEN THE CLIMATIC AND MATERIAL CONDITIONS.

#### JULY 23<sup>RD</sup>: THE AIGUILLES ROUGES, SIGHTSEEING OF THE MONT-BLANC AND MINERALOGY MUSEUM.

- Departure from University Lyon 1 (tram stop T4 T1) 8.00 am. Arrival in Chamonix at the end of the morning.
- Cable car to Planpraz and then Brévent (altitude 2525m). Spectacular sightseeing of the Aiguilles Rouges and the Mont-Blanc range and its glaciers. Presentation of the Mont-Blanc and Aiguilles Rouges geology and glaciology.
- Lunch at the top of the Brévent.
- Back to Chamonix (cable car). Visit of the famous mineralogy Museum Espace Tairaz, whose collections
  result from a long tradition of collecting quartz crystals (cristal de roche) in the high mountains and which
  has just reopened after a major expension of the collections. https://en.chamonix.com/activities/culturalactivities/museums-exhibitors/tairraz-centre-crystal-museum
- Transfert to "les Campanules" resort (van) and diner.
- Free evening.

#### JULY 24<sup>TH</sup>: THE AIGUILLES DE CHAMONIX AND THE MER DE GLACE.

- Early bird wakeup Transfer by van to the Aiguille du Midi cable car.
- Cable car to the Aiguille du midi (3842m). Spectacular sightseeing of the high Mont-Blanc Range. Discussion on the geology, especially the "Protogine" (Mont-Blanc granite).
- Cable car down to the Plan de l'Aiguille (2310m) short walk to see the Mont-blanc shear zone.
- Outside lunch (furnished by the lodging)

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# **ADDITIONAL DESCRIPTION**

# A JOURNEY THROUGH ROCK CRYSTALS AND ICE

Hike to reach the Montenvers train station (~3h, ~7km, +250m, -550m). Spectacular views of Aiguilles de Chamonix where the "cristal de roche" are found, and then on the Mer de Glace and Les Drus et les Grandes Jorasses. Even in the absence of any technical difficulty hikes will be supervised by a mountain guide. For those who do not want to walk it is possible to go back to Chamonix by cable car and then to Monten vers by rack and pinion train (Petit train du Montenvers). This option, however, has to be booked at the time of registratio.

In Montenvers, sightseeing of the Mer de Glace and visit of the crystal's gallery and glaciorium.

• Down to Chamonix by the rack and pinion train.

This hike corresponds to the hike n°1 of the book: Vallée de Chamonix – Massif du Mont-Blanc, 9 itinéraires géologiques by S. Drouet and P. H. Leloup, 2015, Ed. Omniscience and BRGM, ibsn 978-2-916097-65-7 (in French).

- Back to les "Les Campanules" resort (Van) and diner.
- Conference on the geological history of the Mont-Blanc range by P. H. Leloup.

### JULY 24<sup>TH</sup>: THE LES BOIS GLACIER AND THE MER DE GLACE HISTORY.

- Transfert to Les Bois (by Van)
- 5h easy hike to discover the remnants of the old Mer de Glace and the glacier fluctuations. This hike corresponds to the hike n°7 of the book: Vallée de Chamonix – Massif du Mont-Blanc 9 itinéraires géologiques by S. Drouet and P. H. Leloup, 2015, Ed. Omniscience and BRGM, ibsn 978-2-916097-65-7 (in French).
- Outside lunch (furnished by the lodging)
- Way back from Chamonix to Lyon. Approximate arrival time: 7.00 pm



Quartz pockets in Mont-Blanc granite (protogine)



Moraines of the Mer de Glace