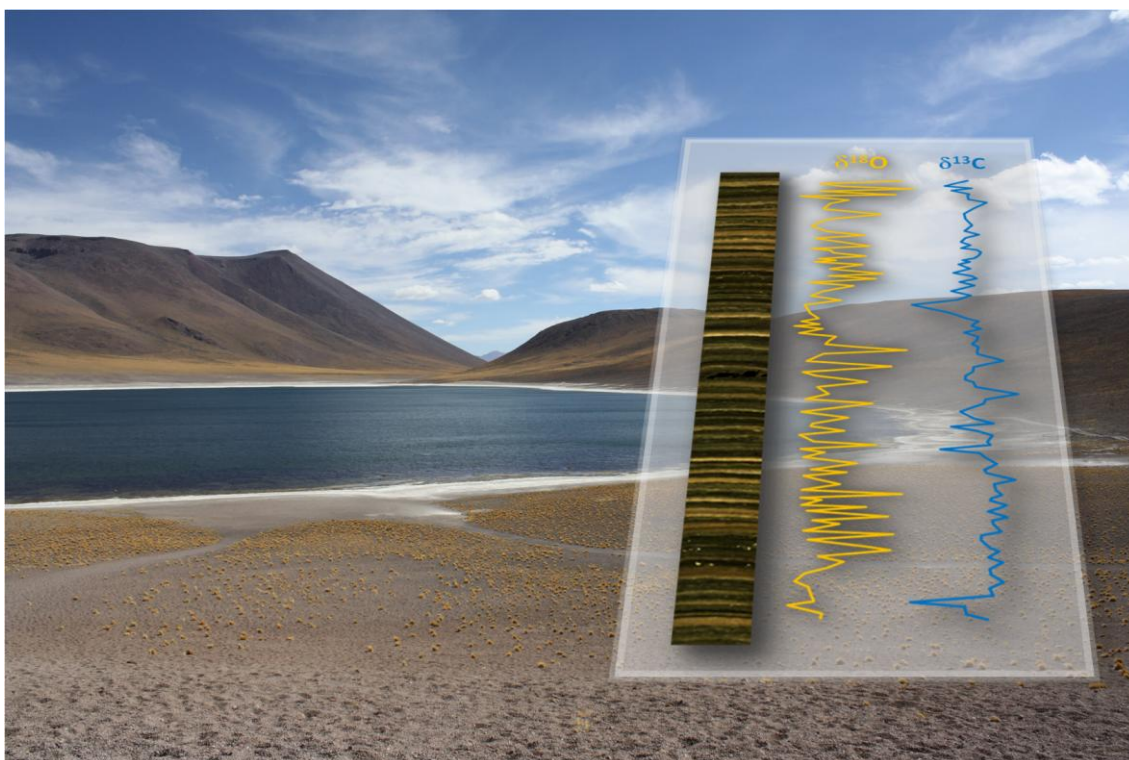


Geologický ústav AV ČR, v. v. i.

Vás zve na přednášku dr. Armanda Hernándezze

na téma

## The use of stable isotopes from lake sediments in palaeoenvironmental reconstructions



Přednáška se bude konat **ve středu 22. 2. v 10:00** na Geologickém ústavu AV ČR, v.v. i. v Praze Suchdole, Rozvojová 269, Praha 6 v malé zasedací místnosti č. 247 v prvním patře

Doprava: Ze stanice metra Dejvická autobus č. 107 nebo 147 na zastávku Kamýcká, více info na [www.gli.cas.cz](http://www.gli.cas.cz)

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### **Anotace k přednášce:**

Lakes are very sensitive to environmental/climatic changes which are usually recorded in their sediments. These therefore constitute accurate sources of information about the lake history. For this reason, in the current context of rapid global change, palaeolimnology is an expanding area of research. In particular, stable isotopes studies have become an important part of this research. Oxygen isotopes are the main isotopes used in palaeolimnology, although other palaeoenvironmental information can be obtained from deuterium, carbon and nitrogen isotopes in lacustrine materials. It is possible to measure several stable isotope ratios from either bulk lake sediments or any organic and/or inorganic compound depending on the kind of material incorporated into the lake deposits. These materials are typically carbonates, biogenic opal and organic matter. In lacustrine environments, changes in oxygen isotope values are normally attributed to changes in temperature or precipitation/evaporation balance, whereas those of carbon and nitrogen are important for assessing organic matter sources, past primary productivity, and changes in nutrient supply. However, the interpretation of isotope proxies is not trivial since the variables that can be measured in the sediments are generally influenced by a wide range of interlinked environmental processes and not by a single factor. In spite of this, the use of stable isotopes is one of the most commonly employed techniques in multiproxy studies for palaeoenvironmental reconstructions.