

TEMA L2-3 The interplay between long-term, large-scale landscape evolution and the formation of late Cenozoic supergene copper mineralization

Dr. Rodrigo RIQUELME

Laboratorio Mixto Internacional Cobre y Pedimento - IRD-COPEDIM

Universidad Católica del Norte

<https://copedim.obs-mip.fr>

COPEDIM is an international research group focusing on the development of geological erosion surfaces (pediments) in the Andes and on associated supergene concentration of some metals like copper by weathering processes. Its objectives are improving knowledge of fundamental processes and training students and professionals about the geomorphological control of supergene copper enrichment.

How and when did erosion and weathering surfaces develop in mountain ranges is a crucial issue to reconstruct climatic and tectonic changes through geological times. Understanding the paleo-environmental conditions required to concentrate copper is fundamental to improve prospection models, in particular below gravel. Our goal is to understand and quantify the optimum paleo- uplift, erosion and climate conditions leading to supergene copper enrichment.

We carry out researches based on field works, mostly in northern Chile and southern Peru, innovative datings of copper bearing minerals, thermochronology to reconstruct the exhumation history of ore deposits, new applications of cosmogenic nuclides to date exotic deposits and to characterize their paleoenvironment, magnetic and geochemical signatures of exotic copper bearing sediment, and we develop numerical and experimental models to study landscape evolution and weathering.

CONTACTO

Los postulantes interesados deberán hacer llegar una carta de interés adjuntando su Curriculum Vitae a rriquehme@ucn.cl

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