

RESEARCH CURRICULA
Prof. Dr. CARLOS PALACIOS M.

1.- Bibliographical information

- Names: Palacios Monasterio, Carlos Eugenio.
- Date of Birth : 27. 1. 1950.
- Nationality: Chilean.
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2.- Academic Background

- Geologist. Universidad de Chile. 1974.
- Ph.D. University of Tübingen. Federal Republic of Germany. 1978.
- Post – Doctoral Studies. Freie University of Berlin. Federal Republic of Germany. 1884 – 1985.
- Main lines of research: Metallogenesis, Geochemistry, Exploration.
- Academic Appointment: Full Professor. Departamento de Geología. Universidad de Chile.

3.- Research and Development Projects.

- Director of the PNUD – SONAMI Project: Geology and Exploration of porphyry copper and epithermal copper – gold deposits in the Inca de Oro District, Atacama Region, Chile. Grant 09-CHI-022-A. (1988 – 1989). US\$ 1.2 million.
- Director of the Project: Exploration of copper – gold deposits between Inca de Oro and Copiapó. Atacama Region. Grant Arauco Resources Co. (1992). US\$ 100,000.
- Sub – Director of the FONDEF Project: Basic Exploration Program in the Chilean Patagonia. Grant MI-15. (1993 – 1996). US\$ 2.5 million.
- Director of the Project: Metallogenic Map of the Chilean Patagonia. Grant Arauco Resources Co.- Regional Government. (1997). US\$ 330,000.
- Director of the FONDEF Project: Methodological innovation in the gold exploration in covered areas: metallogenic and supergene dispersion background. Grant D-96-1033. (1997 – 1999). US\$ 2 millions.
- Sub - Director of the FONDEF Project: Evaluation of Geothermal Resources in Central – South Chile. Grant 1051. (2000 – 2002). US\$ 1 million.
- Director of the FONDEF Project: Metallogenic and geochemical basis for innovative exploration methods of copper deposits in the Coastal Range of northern Chile (2002 – 2004). Grant 1012. US\$ 1 million.
- Sub - Director of the FONDEF Project: Exploration tools of blind copper deposits in the Atacama Desert, northern Chile. (2005 – 2006). Grant D02-I-1083. US\$ 1 million.



4.- Academic Project.

- Director of the MECESUP project: National Program on Doctoral degree in Geological Sciences. Grant UCh – 0010 (2002 – 2006). US\$ 1 million.

5.- Papers in ISI Journals.

- **Palacios, C.**, Oyarzún, R. 1975. Relationship between depth to Benioff zone and K and Sr concentrations in volcanic rocks in Chile. *Geology*, 5: 595-596.
- **Palacios, C.** 1976. Notes about the Jurassic paleovolcanism in Northern Chile. *Bull. Volcanol.*, 34: 438-448.
- **Palacios, C.**, Campano, P., Guerra, N. 1983. Difference of Ti, Zr, Y and P content in calc-alkaline andesites from island arcs and continental margin (Central Andes). *Geologische Rundschau*, 72: 733-738.
- **Palacios, C.** 1984. Considerations about the plate tectonic model, volcanism and continental crust in the Southern part of the Central Andes. *Tectonophysics*, 106: 205-214.
- **Palacios, C.** 1986. Subvolcanic copper deposit in the coastal Range of Northern Chile. *Zentralblatt Geologie Paläont.*, 9/10: 1605-1615.
- Gerlach, D.C., Hart, S.R., Morales, V.M., **Palacios, C.** 1986. Mantle heterogeneity beneath the Nazca Plate: San Félix and Juan Fernández Island. *Nature*, 322: 155-169.
- **Palacios, C.**, Hein, U.F., Dulski, P. 1986. Behaviour of rare earth elements during hydrothermal alteration at the Buena Esperanza copper-silver deposits, Northern Chile. *Earth and Planetary Science Letters*, 80: 208-216.
- Schneider, H. J., Ozgür, N., **Palacios, C.** 1988. Relationship between alteration, rare earth element distribution and mineralization of the Murgul copper deposit, Northeastern Turkey. *Economic Geology*, 83: 1238-1246.
- Ozgur, N., **Palacios, C.** 1990. Geochemical proximity indicators of the Murgul volcanogenic copper deposit. East Pontic Metallotect, Turkey. *Mineral Resources Exploration Bulletin*, 111: 53-64.
- **Palacios, C.**, Lahsen, A., Sylvester, H. 1992. The Inca de Oro district, a fossil epithermal system, northern Chile. *Zentralblatt für Geologie und Palaont.*, 12: 125-145.
- Sylvester, H., **Palacios, C.** 1992. Transpressional structures in the Andes between the Atacama Fault Zone and the West Fissure System at 27°S, Chile. *Zentralblatt für Geologie und Palaont.* 12, 167-183.
- **Palacios, C.**, Townley, B., Lahsen, A., Egaña, A. 1993. Geological development and mineralization in the Atacama segment of the South American Andes, northern Chile (26°15'-27°25'S). *Geologische Rundschau*, 82: 652-662.
- **Palacios, C.**, Lahsen, A., Sylvester, H. 1993. Low-sulfur epithermal gold mineralization at Inca de Oro, Northern Chile: Mineralogy and fluid inclusions. *Journal of South American Earth Sciences*, 6: 183-189.



- **Palacios, C.**, Bertens, A., Ruz, L. 1996. Polymetallic calc-silicate skarn mineralization at El Toqui, Aisén Province, Southern Chile. *Zentralblatt für Geologie und Paläont*. 8: 723-737.
- **Palacios, C.**, Parada, M.A., Lahsen, A.A. 1997. Upper Jurassic Au-Zn mineralization in El Faldeo District chilean Patagonia. *Geologische Rundschau*, 86: 132-140.
- Parada, M.A., **Palacios, C.**, Lahsen, A.A. 1997. Jurassic extensional tectono-magmatism and associated mineralization of El Faldeo District Chilean Patagonia: Evidence of crustal contribution. *Mineralium Deposita*. 32: 547-554.
- **Palacios, C.**, Parada, M.A., Lahsen, A.A. 1997. Lower Cretaceous geological development and mineralization in the Aysen segment of the Chilean Patagonia. *Neues Jahrbuch fur Geologie*, 12: 733-746.
- Dietrich, A., Lehmann, B., Wallianos, A., Traxel, K., **Palacios, C.** 1999. Magma mixing in Bolivian tin porphyries. *Naturwissenschaften*, 86: 40-43.
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- Parada, M., Lahsen, A., **Palacios, C.** 2000. The Miocene plutonic event of the Patagonia Batholith at 44°30'S. Thermochronologic and geobarometric evidence for melting of a rapidly exhumed lower crust. *Trasaction of the Royal Society of Edimburg: Earth Sciences*, 91: 169 – 179.
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- Townley, B., **Palacios C.** 2000. Ore deposits and metallogenesis of Mainland Patagonia, Aysen, Chile. *Exploration and Mining Geology. Special Volume: Latin American Ore Deposits*. Canadian Institute of Mining, Metallurgy and Petroleum, 8: 91 – 108.
- **Palacios, C.**, Herail, G., Townley, B., Maksaev, V., Sepúlveda, F., Parseval, P., Rivas, P., Lahsen, A., Parada, M. 2001. The composition of gold in the Cerro Casale gold – rich porphyry deposit, Maricunga Belt, northern Chile. *The Canadian Mineralogist*, 39: 907 – 915.
- Parada, M., **Palacios, C.**, Lahsen, A. 2001. Ages and geochemistry of Mesozoic – Eocene back – arc volcanic rocks in the Aysen Region of the Patagonian Andes. *Revista Geológica de Chile*, 28: 25 – 46.
- **Palacios, C.**, Townley, B., Dietrich, A., Wallianos, A., Lehmann, B. 2003. The magmatic evolution of the El Salvador copper porphyry system, Chile: New evidence from PIXE data on melt inclusions. *Neues Jahrbuch fur Geologie*, 56: 145 – 159.
- Reich, M., Parada, M., **Palacios, C.**, Dietrich, A., Lehmann, B. 2003. Adakitic – like signatura of late Miocene intrusions at Los Pelambres giant porphyry copper deposit in the Andes of Central Chile: metallogenetic implications. *Mineralium Deposita*, 38: 876 – 885.



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- Sepúlveda, F., Dorsh, K., Lahsen, A., Bender, S., **Palacios, C.** 2004. Chemical and isotopic composition of geothermal discharges from the Puyehue – Cordón Caulle area ($40^{\circ}30'S$), southern Chile. *Geothermics*, 33: 655 – 673.
- **Palacios, C.**, Guerra, N., Townley, B., Lahsen, A., Parada, M. 2005. Copper geochemistry in salts from evaporitic soil. Coastal Range of the Atacama Desert, northern Chile: An exploration tool for blind copper deposits. *Geochemistry: Exploration, Environment, Analysis*, 5: 371 – 378.
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5.- Chapters in Scientific Books.

- **Palacios, C.** 1990. Geology of the Subvolcanic Cu-Ag Deposits in the Coastal Range of Northern Chile. In: Fontboté, L. et al. (eds.): *Stratabound Ore Deposits in the Andes*. Springer Verlag. Berlin. 183-201.
- Maksaeve, V., Townley, B., **Palacios, C.**, Camus, F. 2006. Metallic Ore Deposits of Chile. In: Gibbons, W. (ed.): *The Geology of Chile*. Geological Society of London. In press.

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