

**PRODUCCION ACADEMICA 2003**  
**CENTRO DE GEOCIENCIAS**

***Artículos publicados en Revistas del SCI***

1. **Aguirre-Díaz, G.J.**, and Labarthe-Hernández, G., 2003. Fissure ignimbrites: Fissure source origin for voluminous ignimbrites of the Sierra Madre Occidental and its relationship with Basin and Range faulting. **Geology**, v. 31, p. 773-776.
2. **Aranda-Gómez, J.J.**, Luhr, J.F., Housh, T.B., Connor, C.B., Becker, T., Henry, C.D. 2002. Synextensional Plio-Pleistocene eruptive activity in the Camargo volcanic field, Chihuahua, México: **Geological Society of America Bulletin**, 115-3, p. 298-313.
3. Baraldo, A., A.E. Rapalini, **H. Böhnel**, M. Mena, 2003. Paleomagnetic study of Deception Island, South Shetland Islands, Antarctica, **Geophys. J. Int.**, 153, 333-343,
4. **Biggin, A.J.**, **Böhnel, H.** A method to reduce the curvature of Arai plots produced during Thellier palaeointensity experiments performed on multidomain grains. **Geophys. J. Int.**, 155, F13-F19, 2003 (Fast track paper).
5. **Biggin, A.J.**, **Böhnel, H.N.**, **Zuñiga, F.R.** How many paleointensity determinations are required from a single lava flow to constitute a reliable average? **Geophys. Res. Lett.**, 30, No. 11, 10.1029/2003GL017146, 07 June 2003.
6. **Biggin, A.J.**, Thomas, D.N.. Analysis of long-term variations in the geomagnetic poloidal field intensity and evaluation of their relationship with global geodynamics. **Geophys. J. Int.**, 152, 392-415, 2003.
7. Bocanegra, G. and Carrillo-Chavez, A. 2003. Hydro-Geochemical Behavior of Bicarbonate and Sulfate Ions Leaching from a Sulfide-Poor Silver Mine at Central Mexico: Potential Indicator of Acid Mine Drainage. **Bulletin of Environmental Contamination and toxicology** 71, 1222-1229.
8. **Böhnel, H.**, Biggin, A., Walton, D., Shaw, J., Share, J., Microwave paleointensities from a recent Mexican lava flow, baked sediments and reheated pottery. **Earth Planet. Sci. Lett.** 214, 221-236, 2003.
9. **Camprubí, A.**, Melgarejo, J.C., Proenza, J.A., Costa, F., Bosch, J., Estrada, A., Borrell, F., Yushkin, N.P., Andreichev, V.L., 2003. Mining techniques and geological knowledge during the Neolithic: the case of the variscite mines at Gavà, Catalonia. **Episodes**. 26(4), 295-301.
10. **Camprubí, A.**, Norman, D.I., Chomiak, B.A., 2003. Evidence for fluid sources by Quadrupole Mass Spectrometry (QMS) in the La Guitarra Ag-Au epithermal deposit, Temascaltepec district, Mexico. **Journal of Geochemical Exploration**, 78-79, p. 593-599.
11. **Camprubí, A.**, **Ferrari, L.**, Cosca, M.A., Cardellach, E., Canals, À., 2003. Ages of epithermal deposits in Mexico: regional significance and links with the evolution of Tertiary

volcanism. **Economic Geology**, v. 98 (5), p. 1029-1037.

12. **Carreón-Freyre., D.C.**, Cerca M., Hernández-Marín, M., 2003. Correlation of nearsurface stratigraphy and physical properties of clayey sediments from Chalco Basin, Mexico, using Ground Penetrating Radar. **Journal of Applied Geophysics** 53: 121-136.
13. **Carrillo-Chávez, A.**, Morton-Bermea, O., **González-Partida, E.**, Rivas-Solorzano, H., Garcia- Meza, V. and Oesler, G. Environmental geochemistry of the Guanajuato mining district, Mexico. 2003., **Ore Geology Review** V.23, pp. 107-124.
14. Fawcett, T.C., Burmester, R.F., Housen, B.A. and **Iriondo, A.** 2003. Tectonic implications of magnetic fabrics and remanence in the Cooper Mountain Pluton, North Cascade Mountains, Washington: **Canadian Journal of Earth Sciences**, v. 40, p. 1335-1356.
15. Fuller M.D., **Molina Garza R.S.**, M. Antretter, and F. Lichowski, Magnetostratigraphy of the Plio-Pleistocene carbonate section of the Great Australian Bight, Australian **J. Of Earth Sci.**, vol. 50, 3, 447-466, 2003.
16. **Gómez-Tuena, A.**, Lagatta, A., Langmuir, C., Goldstein, S., Ortega, F., **Carrasco-Núñez, G.**, Temporal control of subduction magmatism in the Eastern Trans-mexican Volcanic Belt: mantle sources, slab contributions and cristal contamination. **Geochemistry, Geophysics and Geosystems**, 8912, doi:10.1029/2003GC00524. 4, 1-33.
17. **González-Partida. E.**, **Carrillo-Chávez, A.**, **Levresse, G.**, **Tritlla, J.**, **Camprubí, A.**, 2003, Genetic implications of fluid inclusions in skarn chimney ore, Las Animas Zn-Pb-Ag (F) deposit, Zimapán, México. **Ore Geology Review**, v. 23, pp 91-96.
18. **Gonzalez-Partida E**, **Carrillo-Chávez A.**, Grimmer J., Pironon J., Mutterer, **Levresse G**, 2003. Geochemical evolution of mineralizing fluids at the fluorite Encantada-Buenavista District, northern México: a Mississippi valley type deposit. **Ore Geology Reviews**, 23,107-124.
19. **González-Partida, E.**, **Carrillo-Chávez, A.**, **Levresse, G.** and **Solorio-Munguía, J.** 2003. Auro-ferriferous (Au-Fe) Skarn rocks of south-central Mexico (Mezcala district): Magma composition and evolution of mineralizing fluids. **International Geology Reviews**, v. 45, n.1, p. 79-93.
20. **González-Partida, E.**, **Levresse, G.**, **Carrillo-Chávez, A.**, Cheilletz, A., Gasquet, D. and Jones, D. 2003 Paleocene Adakite Bearing Au-Fe Intrusive Rocks, Mezcala, Mexico: Evidence from Geochemical Characteristics **Journal of Geochemical Exploration** ,v. 80, p. 25-40.
21. **González-Partida E.**, **G. Levresse**, Santoyo, E., 2003, Fluid inclusion evolution at the La Verde Michoacán, porphyry copper deposit. **Journal of Geochemical Exploration** v. 78-79, pp623- 626.
22. **González-Partida E.**, **G. Levresse**, 2003, Paleo-Fluid and actual-fluid in the Los Azufres geothermal field central. **Journal of Geochemical Exploration** v. 78-79, pp67-70.

23. Grimalsky, V. V., S. V. Koshevaya, R. **Pérez Enríquez**, A. N. **Kotsarenko**, Nonlinear excitation of ULF atmosphere-ionosphere waves and magnetic perturbations by LF seismic acoustic bursts, **Physica Scripta**, 67, 453-456, 2003.
24. Grimalsky, V., S. Koshevaya, A. **Korsarenko**, R. **Pérez-Enríquez**, 'Simulation of Nonlinear Baseband Acoustic Ultra -Low Frequency Waves in the System Ocean-Earth's Crust, **System Analysis Model. Simulation (SAMS)**, 2003, Vol.43.
25. **Levresse, G., E. González-Partida**, 2003 High oxidised gold skarn fluid evolution in the Mezcala deposit, Guerrero, México. **Journal of Geochemical Exploration** v. 78-79, pp 649-653.
26. **Levresse, G., González-Partida. E., Tritlla, J., Camprubí, A.,** Cienfuegos-Alvarado, E., Morales-Puente, P., 2003. Fluid origin of the world-class, carbonate-hosted Las Cuevas fluorite deposit (San Luis Potosí, Mexico). **Journal of Geochemical Exploration**, v. 78-79, p. 537-543.
27. Mallinson, D-J., Flower, B., Hine, A., Brooks, G., and **Molina-Garza, R.S.**, Paleoclimate implications of high latitude precession scale mineralogical variations during early Oligocene Antarctic glaciation: the Great Australian Bight record, **Global and planetary change**, 39, 257-269, 2003.
28. Malnev, V.N., V.N. Martysh, A.N. **Kotsarenko**, V.V. Grimalsky, R.**Pérez Enríquez**, S.V. Koshevaya, "On the Problem of Additional Sources of Microwave Radiation in Space Plasma", **Planetary and Space Science**, 2003, Vol. 52(8), P. 123-125.
29. Martínez-Ibarra, R., **Tritlla, J.**, Cedillo-Pardo, E., Grajales-Nishimura, J.M. and Murillo-Muñetón, G. (2003).- "Brine and hydrocarbon evolution during the filling of the Cantarell Oil Field (Gulf of Mexico)". **Journal of Geochemical Exploration**, 78-79, pp 399-403.
30. **Molina-Garza, R., Böhnel, H.**, Hernandez-Treviño, T. Paleomagnetism of the Cretaceous Morelos and Mezcala Formations, Southern Mexico. **Tectonophysics** , 361, 301-317, 2003.
31. **Molina-Garza, R.S.**, J.W. Geissman, and S.G. Lucas, Paleomagnetism and magnetostratigraphy of the lower Glen Canyon and upper Chinle Groups, Jurassic -Triassic of northern Arizona and northeast Utah, USA, **Journal. Geophys. Research.**, 108, pp, 2003.
32. Morales-Ramírez, J.M., **Tritlla, J., Camprubí, A.**, Corona-Esquivel, R., 2003. Fluid origin of the Ixtacamaxtitlán hydrothermal deposits (Puebla State, Mexico). **Journal of Geochemical Exploration**, v. 78-79, p. 653-657.
33. **Oleschko, K.**, Korvin, G., Figueroa, B., Vuelvas, M.A., Balankin, A., Flores, L., Carreón, D., 2003. Fractal radar scattering from soil. **Physical Review E**. 67 (041403), 13 p.
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37. Petrone C.M., Francalanci L., Carlson R.W., **Ferrari L.**, Conticelli S., 2003. Unusual coexistence of subduction-related and intraplate-type magmatism: Sr, Nd and Pb isotope and trace elements data from the magmatism of the San Pedro-Ceboruco graben (Nayarit, Mexico). **Chemical Geology**, v. 193, p. 1-15.
38. Proenza, J.; Alfonso, P.; Melgarejo, J.C.; Gervilla, F.; **Tritlla, J.** and Fallick, A.E. (2003).- "D, O and C isotopes in podiform chromitites as fluid tracers for hydrothermal alteration processes of the Mayarí-Baracoa Ophiolitic Belt, eastern Cuba". **Journal of Geochemical Exploration**, 78-79, pp 117-122.
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41. **Tritlla, J.** and Cardellach, E. (2003).- "Ba-Hg deposits in the Espadán Ranges (Iberian Chain, Eastern Spain): an example of Cretaceous fluid circulation and Alpine overprinting". **Journal of Geochemical Exploration**. 78-79, pp 579-584.
42. Verma, S.P. and **Carrasco-Núñez, G.** 2003. Reappraisal of the geology and geochemistry of the Volcán Zamorano, central Mexico: implications for the discrimination of the Sierra Madre Occidental and Mexican Volcanic Belt provinces. **Internacional Geology Review**, 45, 724-752.
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#### Artículos en Revistas Extranjeras

44. Rangel Miranda, D., **Carreón Freyre, D.C.**, Cerca Martínez, M., Méndez Moreno, E., 2003. Valuation of Ground Penetrating Radar for the record of structures in fluvio-lacustrine

soils. Journal of Applied Research and Technology. 1(1): 85-93.

### **Artículos en Special Papers**

45. Cerca M., **Ferrari L.**, Bonini M., Corti G., and Manetti P., 2003. The role of crustal heterogeneity in controlling vertical coupling during Laramide shortening and the development of the Caribbean-North America transform boundary in southern Mexico: insights from analogue models. Special Publication of the Geological Society, London. en prensa.
46. **Ortega-Rivera, A.** 2003. Geochronological Constraints on the Tectonic History of the Peninsular Ranges Batholith of Alta and Baja California : Tectonic Implications for Western México, The Gastil volume. GSA Special Paper 374-11. 39pp.

### **Artículos en Revistas Nacionales (Padrón Conacyt)**

47. **Camprubí, A.**, 2003. Geoquímica de fluidos de los depósitos epitermales del Sureste del Distrito de Temascaltepec, Estado de México. Revista Mexicana de Ciencias Geológicas, v. 20, p. 107-123.
48. **Ferrari L.**, Petrone C.M., Francalanci L., Tagami T., Eguchi M., Conticelli S., Manetti P. and Venegas Salgado S., 2003. Geology of the San Pedro-Ceboruco graben, western Trans-Mexican Volcanic Belt. Revista Mexicana de Ciencias Geológicas, v. 20, p. 165-181.
49. **Tritlla, J., Camprubí, A.**, Corona-Esquivel, R., Centeno-García, E., Iriundo, A., Sánchez-Martínez, S., Gasca-Durán, A.A., Cienfuegos-Alvarado, E., Morales-Puente, P., 2003. Estructura y edad del depósito de Peña Colorada (Colima): un posible equivalente Fanerozoico de los depósitos de tipo IOCG. Revista Mexicana de Ciencias Geológicas. 20-3, 182-202.

### **Artículos Nacionales fuera del Padrón de Conacyt**

55. **Nieto-Samaniego, A. F., Alaniz-Alvarez, S. A.**, Tolson, G. Xu, S.S., Pérez-Venzor, J. A., 2003, Estimación de densidades, distribuciones de longitud y longitud total de fracturas; un caso de estudio en la Falla de Los Planes La Paz, B.C.S., México, Boletín de la Sociedad Geológica Mexicana 51, 1-9.

### **Artículos en memorias**

50. Arroyo M., Pérez H., Rojas E., Herrera W., Zermeño M., Lermo J., **Zúñiga R.**, Martínez J. Y Arzate J.A.; Zonificación sísmica de las poblaciones mas importantes en el Valle de Aguascalientes. Memorias del XIV Congreso Nacional de Ingeniería Sísmica (artículo II-21).

51. **Carreón Freyre, D.**, Vargas Cabrera C., Cerca, M., Hernández Marín, M., Gámez González J, Álvarez Rodríguez J., Luna Gonzalez, L., 2003. Análisis del flujo de agua subterránea en el acuífero del Valle de Querétaro. Simposio "La investigación y el desarrollo tecnológico en Querétaro. CONCYTEQ. Octubre de 2003. Resumen ISBN 968-5402-12-4.
52. **Carranza Castañeda, O.** and Miller, E. W. En prensa Late Terrestrial Mammals from Central México and their Relationship to South American Immigrants Libro de Memorias del XVIII Paleontological Congress Grimalsky, V., oshova, A. Kotsarenko, R. Pérez – Enríquez, An Influence of Lower Atmosphere Perturbations of Conductivity on the Structure of Schumann Resonances, Progress in Electromagnetics Research Symposium: PIERS-2003, Singapore, 7-11 Enero, 2003, P.202-204.
53. **Kotsarenko, A., Pérez Enríquez, J.L.A. Cruz Abeyro, S.** Koshova, V. Grimalsky, ULF EM Emission Related to Seismic Activity in Mexico During 2000-2001, Progress in Electromagnetics Research Symposium: PIERS-2003, Singapore, 7-11 Enero, 2003, P.198-200.
54. **Vassallo L.F.**, Shatagin N.N., 2003, "Metamorfogennie fluidnie vkluchenia v kvarce kolchedanno-polimetallicheskogo mestorozhdenia Tizapa (Centralnaia Mexika)" Materiali "XI Mezhdunarodnoi konferencii po termobarogeohimii". str. 123-127. Russia. ("Inclusiones fluidas metamorfogénicas en cuarzos del depósito VHMS polimetálico Tizapa (Mexico Central)"), Artículos "XI Conferencia Mundial sobre termobarogeoquímica". pag. 123-127. Rusia. Publicado.

### Artículos sin arbitraje

55. **Aguirre-Díaz, G.J.**, 2003, Excursión Caldera de Amazcala, Querétaro, XIII Congreso Nacional de Geoquímica, INAGEQ 2003 (publicación virtual en disco compacto). Alaniz-Alvarez, S. A., Nieto-Samaniego, A.F., Ortega-Gutierrez, F., Tolson, G., 2003, Léxico de Geología Estructural y Tectónica, in Léxico Geológico Mexicano, editores, Alaniz-Alvarez, S.A., Nieto-Samaniego y Tolson, G., Sociedad Geológica Mexicana, México, D.F. <http://www.satori.unicit.unam.mx/LGM/>
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57. **Origel-Gutiérrez, G.** 2003. No todos los mapas son mapas y los planos no son tan planos: reflexión a partir de los elementos de diseño cartográfico, La Gaceta Geológica, Época II, vol. VI, núm. 1, Abril, publicada por la Sociedad Geológica Mexicana, A. C., México, D.F.
58. **Orozco-Esquivel, M.T.**, Morán-Zenteno, D.J., Martiny, B., Velasco-Tapia, F., Léxico de Geoquímica, en Alaniz-Álvarez, S.A., Nieto-Samamiego, A.F., Tolson, G. (eds.), Léxico Geológico Mexicano: Sociedad Geológica Mexicana, publicación electrónica, <http://www.satori.geociencias.unam.mx/LGM/>

59. Pacheco J., **Arzate J.A.**, Rojas E., Arroyo M. y Ochoa G., 2003; Delimitación de zonas de riesgo de generación de agrietamientos superficiales mediante el análisis de datos gravimétricos. Revista de CONACyT, Sustentabilidad del Sistema del agua en Querétaro (en prensa: ISBN 968-5402-12-4).
60. **Tritlla, J., Camprubí, A.**, Corona-Esquivel, R., Centeno-García, E., 2003. Los depósitos de tipo óxido de Fe (Cu-U-Au-REE): polémicas sobre su origen y su posible existencia en territorio mexicano. Boletín Técnico Coremi, v. 52, p. 25-32.

### Software

Fractal analysis:

<http://geologia.igeolcu.unam.mx/Tolson/SoftWare/FracAnalysisV16.exe>

### Capítulos en Libros

1. **Aranda-Gómez, J. J.**, M. M. Godchaux, G. d. J. Aguirre-Díaz, B. Bonnicksen, and J. Martínez-Reyes, 2003, Three superimposed volcanic arcs in the southern Cordillera-from the Early Cretaceous to the Miocene, Guanajuato, Mexico, in D. J. Morán-Zenteno, ed., Geological transects across Cordilleran México: Publicación Especial 1, México, D.F., Universidad Nacional Autónoma de México, Instituto de Geología.
2. **Aranda-Gómez, J. J.**, C. D. Henry, J. F. Luhr, and F. W. McDowell, 2003, Cenozoic volcanic-tectonic development of northwestern Mexico: A transect across the Sierra Madre Occidental Volcanic Field and observations on extension-related magmatism in the southern Basin and Range and Gulf of California tectonic provinces, in D. J. Morán-Zenteno, ed., Geological transects across Cordilleran México: Publicación Especial, México, D.F., Universidad Nacional Autónoma de México, Instituto de Geología.
3. Fletcher, J., J. A. Pérez-Venzor, G. González-Barba, and **J. J. Aranda-Gómez**, 2003, Ridge-trench interactions and the ongoing capture of the Baja California microplate -new insights from the Southern Gulf Extensional Province, in D. Morán-Zenteno, ed., Geological Transects across Cordilleran México: Publicación Especial 1, México, D.F., Universidad Nacional Autónoma de México, Insituto de Geología.
4. **Morán, D.**, Escobar. E., Vidal, V., Raga, G., **Carrasco-Núñez, G.**, Alcocer. J., Delgado, H., Stilman, L. 2003. El estado de la actividad científica en el campo de las geociencias en México. En: Estado actual y prospectiva de la ciencia en México, Academia Mexicana de Ciencias, 119-152.
5. **Morán-Zenteno, D.J.**, Martiny, B., Alba-Aldave, L., González-Torres, E., Hernández-Treviño, T., **Alaniz-Alvarez, S.A.**, 2003, Tertiary magmatism and tectonic deformation along the Cuernavaca-Acapulco Transect, in Geologic transects across Cordilleran Mexico, Guidebook for the field trips of the 99th Geological SOciety of America Cordilleran Section Annual Meeting, Puerto Vallarta, Jalisco, México, April 4-6, 2003;México, D.F: Universidad Nacional Autónoma, Instituto de Geología, Publicación Especial 1, Field trip 11, p. 261-280.