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## Jeoloji Panorama

Jeoloji Mühendisliği Dergisi'nin 50. sayısının "Jeoloji Panorama" Dünya PeriyodÜderinde CD Tarama sayfalarında "Karbonatların jeokimyası" konusu araşbrmacüann hizmetine sunulmaktadır. Öz/Abstract bölümünde sayfa sınırlaması nedeniyle ancak 4 öz/abstract'a yer verildi.. Sempozyumlardan haberlere 1997 yılında Çukurova ve Selçuk: Üniversiteleri Jeoloji Mühendisliği Böllimleince .gerçekleştirilmiş Jeoloji Sempozyumlan ko.no yapılmışta. Çeşitli yayınevlerinden derlenen yeni, yaym ve kitaplarla okurianmizm Iteratör dağarcığı daha da zen.ginleşmiş olacakta.. Yapılan değerlendirme sonucunda oldukça ilgi göreceğine .inandığımız ""Jeoloji .Panorama\*\*\* sayfalarına içerdikleri konu başlıkları, kapsamında sizlerden gelecek, olan yazıları beklemektedir. Bo düşünce ile sizlerinde katkılarıyla jeolojinin çeşitli, disiplinlerine daha. geniş bir perspektifle bakabilmek olanağı bulunulacaktır. Ayrıca okurlarımızın bize gönderecekleri öğrenmek istedikleri konulan ve yanıtlamamızı istedikleri somları, yanıtlan ile birlikte bulacakları "Okurlarımızdan\*\* başlığı ile yeni. bir bölümü gelecek, sayımızdan başlayarak "Jeoloji Panorama" içinde yer vereceğiz..

### Dünya Periyodiklerinden CD-Tarama GEO-REF (1983-1993)

Hazırlayanlar Engin öncü. Sümer ve Mine Sümer.  
Konu: Karbonatlı kayaçların jeokimyasal, özelikleri

#### Kısaltmalar

TI = Başlık

AU = Yazar (fer)

ÖS = Yayınlandığı yer,, cilt, sayfa

AB' = Yayınının özeti

YE = Yayınıldığı, yıl

LA = Yayınının yazıldığı dil

DE = Yayınının, anahtar' sözcükleri

### GEOCHEMISTRY OF CARBONATE (References) (ODTÜ Kütüphanesi GEOREF 1983-1993 CD-taraması)

TI: Sedimentary cycling and -environmental change in the late Proterozoic; evidence from stable sand radiogenic isotopes.

AU: Derry-Louis-A; Kaufman-Alan-J; Jacobsen-Stein-B

SO: Geochimica-et-Cosraochimica-Acta.. 56.. (3). p. İ 317-1329. YR: 1992

DE: carbon-; C- $\delta$ 13/C-12; carbonate-rocks; strontium-; Sr-87/Sr~86; oxygen-; 0-18/0-1.6; isotopes-; sedimentary-rocks; upper-Proterozoic; Proterozoic-; upper-Precambrian; Precambrian-; stable-isotopes; radioactive-isotopes; alkaline-earth-metals; metals-; ratios-; marine-environment; environment-

TI: Geochemistry of Precambrian carbonates; IV, Early Paleoproterozoic (2.25 + or - #<25 Ga) seawater.

AU: Veizer-Jan; Oayton-Robert-N; Hinton-R-W

SO: Geochimica-et-Cosmochimica-Acta. 56. (3). p.. 875-885. YR: 1992

DE: South-Africa; geochemistry-; carbonate-rocks; Australia-; Canada-; oxygen-; Q-18/O-16; carbon-; C-13/C-12; isotopes-; sedimentary-rocks; strontium-; Sr-87/Sr-86; Precambrian-; lower-Proterozoic; Proterozoic-; upper-Precambrian; Malmani-Dolomite; Transvaal-Supergroup; Southern-Africa; Africa-; Duck-Creek-Dolomite; Wyloo-Group"; Australasia-; Bruce-Member; Espanola-Formation; Huronian-; trace-elements; stable-isotopes; ratios-; marine-environment; environment-; alkaline-earth-metals; metals-

TI: Carbonate minerals, major and minor elements and oxygen, and carbon isotopes and their variation with water depth in cool, temperate carbonates, western Tasmania, Australia.

AU: Prasada-Rao-C; Adabi-Mohammad-H

SO: Marine-Geology. 103. (1-3). p. 249-272.. YR: 1992

DE: Tasmania-; oceanography-; sediments-; Tasman-Sea; oxygen-; O- $\delta$  8/0-16 ; carbonate-sediments; carbon-; C-13/C-12; isotopes-; diagenesis-; cementation-; geochemistry-; processes-; chemical-fractionation; Australia-; Australasia-; West-Pacific; Pacific-Ocean; carbonates-; major-elements; minor-elements; stable-isotopes; sedimentation-rates; marine-sediments; temperate-environment; environment-; depth-; temperature-; SEM-dala; X-ray-diffraction" data; bryomol-; bioclastic-sedimentation

TI: Glacial to interglacial contrasts in the calcium carbonate content and influence of Indus discharge in two eastern Araman Sea cores.

AU: Divakar-Naidu-P

SO: Palaeogeography.-Palaeoclimatology-Palaeoecology. 86. (3-4). p. 255-263. YR: 1991

DE: Arabian-Sea; stratigraphy-; Quaternary-; sediments-; composition-; calcium-carbonate; Indian-Ocean; Indus-River; cores-; discharge-; distribution-; geochemistry-; Holocene-; Pleistocene-; glacial-environment; environment-; interglacial-environment fluctuations-; climate-; changes-; indicators-

TI: Geochemical mapping of carbonate terrains.

AU: Pire-Simon; McNeal-J-M; Lenarcic-T; Prohic-Esad; Srvkota-R

SO: Applied-Earth-Sciences.. 100. p. B74-B87. YR; 1991

DE: Yugoslavia-; geochemistry-; surveys-; geomorphology-; solution-features.; karst-; cartography-; topography-; terrains-; carbonates-; Southern-Europe; Europe-; statistical-analysis; soils-

TI: Strontium isotope profile of Carboniferous-Permian Akiyoshi Limestone in Southwest Japan.

AU: Nishioka-Sumino; Arakawa-Yoji; Kobayashi-Yoji

SO: Geochemical-Journal. 25. (3). p. 137-146. YR: 1991

DE: Japan-; geochemistry-; isotopes-; Sr-87/Sr-86; limestone-; strontium-; sedimentary-rocks; Akiyoshi-Limestone; Honshu-; Far-

East; Asia-; alkaline-earth-metals; metals-; sedimentary-petrology; carbonate-rocks; stable-isotopes; Carboniferous-; Permian-; interpretation-

TT: Pétrographie and geochemical analysis of caliche profiles in a Bahamian Pleistocene dune.,

AU: Beier-J-A SO: Sedimentology. 34. (6). p. 991-998. YR: 1987

DE: Bahamas-; geochemistry-; sedimentary-rocks; carbonate-rocks; caliche-; carbon-; C-13/C-12; oxygen-; O-18/O-16; isotopes-; ratios-; upper-Pleistocene; Pleistocene-; Quaternary-; West-Indies; clastic-rocks; eolianite-; "stable-isotopes; trace-elements; petrography-; San-Salvador

TI: Petrological and isotopic implications of some contrasting late Precambrian carbonates, ME Spitsbergen.

AU: Fairchild-I-J; Spiro-B SO: Sedimentology. 34. (6). p. 973-989.. YR: 1987

DE: Spitsbergen-; sedimentary-petrology; sedimentary-rocks; carbonate-rocks; geochemistry-; carbon-; C-13/C-12; oxygen-; O-18/O-16; isotopes-; ratios-; Svalbard-; Vendian-; upper-Ptotozoic; Proterozoic-; stable-isotopes.; iron-; metals-; manganese-; strontium-; alkaline-earth-metals-; diagenesis-; paieoenvironment-; upper-Precambrian; Precambrian-; Arctic-region; Polar-regions.

TI: Coordinated textural, isotopic, and elemental analyses of constituents in some Middle Devonian limestones.

AU: Popp-Brian-Nicholas OS; University of Illinois, Urbana, United-States; Master's SO; 136 p, YR: 1981

DE: sedimentary-rocks; limestone-; isotopes-; Devonian-; sedimentary-petrology; geochemistry-; carbonate-rocks; textures-; Middle-Devonian

TI: Stable isotope geochemistry of early Proterozoic carbonate concretions in the Animikie Group of the Lake Superior region; evidence for anaerobic bacterial processes.

AU: Winter-Beyce-L; Knauth-L-Paul SO: Precambrian-Research. 54. (2-4). p. 131-151. YR: 1992

DE: Minnesota-; geochemistry-; isotopes-; Ontario-; carbon-; C-13/C-12; concretions-; oxygen-; O-18/O-16; sulfur-; S-34/S-32; sedimentary-structures; secondai-structures; Aitimikie-Group; Rove-Formation.; Thomson-Formation; Gunflint-Iron-Formaön; Midwest-; Uni ted-States; stable-isotopes; lower-Proterozoic; Proterozoic-; dolomite-; carbonates-; precipitation-; diagenesis-; reduction-; Eastern-Canada; Canada-; Pass-Lake-Quarry; Oliver-Creek; electron-probe-data; authigenic-minerals; Lake-Superior-region

TI; Origin of carbonate deposits in the vicinity of Yucca Mountain, Nevada; pTellmlnary results of hydrochemical modeling.,

AU: Kroitoru-Levy; Livnat-Alex; Fenster-David-F; Van-Camp-Scott-G

SO: American-Geophysical-Union. 72. (17). p. 116 YR: 1991

DE: Nevada-; hydrogeologys ground-water; Nye-County-Nevada; Western-U.S.; United-States; sou.thern-Neva.da; Nevada-Test-Site; Yucca-Mountain; waste-disposal; radioactive-waste; high-level-waste; calcite-; carbonates-; fractures-; hydrochemistry-

TI: Geochemical constraints on the origin of dolomite in the Ordovician Trenton and Black River limestones» AIMon-Scipio area. Michigan.,

AU: Granath-Victoria-C

SO: AAPG-Bolietin, 75.. (3). p. 584-585 YR: 1991

DE: Michigan-; sedimentary-petrology; sedimentary-rocks; Trenton-Group; Black'-River-Group; Midwest-; United-States; geochemistry-; dolostone-; carbonate-rocks; ordovician-; limestone-; Albion-Scipio-Ftetd; Stoney-Point-Field; south-central-Michigan; strontium-; alkaline-earth-metals; metals-; Sr-87/Sr-86; isotopes-; stable-isotopes;

matrix-; cement-; dolomitization-; sea-water; brines-; fluid-inclusions-; inclusions-; geologic-thermometry; oxygen-; O-18/O-16; hydrogen-; D/H-; deuterium-; Michigan-Basin; North-America; siliciclastics-

TT: Carbon isotopic stratigraphy of the San Andres Formation; a possible correlation tool.?

AU: Colgan-R-Eugene; Scholle-Peter-A

SO: AAPG-Bulletin.. 75.. (3).. p. 555 YR: 1991

DE: Texas-; stratigraphy-; Permian-; San-Andres-Formation; Southwestern-U.S.; United-States; carbon-; isotopes-; correlation-; Algerita-Escarpment; Permian-Basin; transgression-; shelf-environment; environment-; nearshore-environ.m.ent; progradation.-; cycles-; dolostone-; carbonate-rocks.; C-1.3/0.12; stable-isotopes; dissolved.-materi.als; dolomi.tizati.on-; chemostratigraphy-

TI: Calhodolminescence and trace-element geochemistry of carbonate cements formed with burial in seawater.

AU: Budd-D-A

SO: AAPG-Bulletin., 75. (3). p. 547 YR: 1991

DE: Atlantic-Ocean; sedimentary-petrology; diagenesis-; cathodoluminescence-; trace-elements; cement-; carbonates-; sea-water; cementation,-; Lower-Cretaceous; Cretaceous-; turbidite-; debris-flows; mass-movements; .DSDP-Site-534.; Leg-76; EPOB-; Deep-Sea-DrilHng-Project; DSDP-Site-416; Leg-50; aliochems-; petrography-; overgrowths-; siliciclastics-; Eh-; pH-; brines-; lime stone- ; carbo nate-rocks

TI: Diagenetic framework for chemical remanence acquisition in lower Paleozoic carbonate rocks from W.. Newfoundland.

AU: Beaubouef-R-T; Rush-P-F

SO: ÄAPG-Bulletin. 75. (3>. p. .539 YR: 1991

DE: Newfoundland-; sedimentary-petrology; diagenesis-; stratigraphy-; Paleoizoic-; Eastern-Canada; Canada-; lower-Paleozoic; carbonate-rocks ; western-Newfoundland; Saint-George-Group ; Tfemadocian-; Lower-Ordovician; Ordovician-; Port-au-Port-Peninsula; Cambrian-; autochthons-; uplifts-; petrography-; evolution-; fabric-; limestone-; dolostone-; paleomagnetism-; magnetization-; hematite-; oxides-; karst-; solution-features; dedolomitization-; remagnetization-; magnetite-; geochemistry-; cementation-; precipitation-; authigenic-minerals; dolomitization-

TI:: Kuwaiti dolocrete; petrology» geochemistry and groura.dwa.ter origin..

AU: El-Sayed-M-1; Fairchild-1-J; Spiro-B SO: Sedimentary-Geology. 73. (1-2). p. 59-75. YR: 1991

DE: Kuwait- " sedimentary-petrology; sediments-; sedimentary-rocks; chemically-precipitated-rocks; duricrust-; ground-water; geochemistry-; isotopes-; oxygen-; Q-18/O-16; carbon-; C-13/C-12; Arabian-Peninsula; Asia-; Quaternary-; calcrete-; carbonate-rocks; dolocrete-; stable-isotopes; dolomite-; carbonates-; dolostone-

TI: À reconnaissance carbon-oxygen isotopic study of nodritic components in Silurian marine carbonates from eastern Iowa.

AU: Ludvigson-Greg-A; Witzke-Brian-J; Gonzalez-L-A SO: - Geological-Society-of-America. 23. (3). p. 26 YR: 1991

DE: Iowa-; stratigraphy-; Silurian-; Scotch-Grove-Formation; Gower-Fbrmati.on; Le-Porte-City-Liroestone; Midwest-; United-States; carbon-; C-13/C-12; isotopes-; stable-isotopes; oxygen-; 0-18/0-16; carbonate-rocks; micritization-; diagenesis-; sedimentar-f-petrology; processes-; eastern-Iowa; dolomitization-

TI: Petroleum potentialities of central Tunisia as deduced from identification and characterization of oil source rocks.

AU: Saidi-M; Acheche-M-H; touibii-H; Belayouni-H

SO: AAPG-Bulletin. 75. (8). p. 1420 YR: 1991

DE: Tunisia-; economic-geology; petroleum-; North-Africa; Africa-; central-Tunisia; source-rocks; possibilities-; Silurian-; Devonian-; shale-; clastic-rocks; Cretaceous-; black-shale; Eocene-; Paleogene-;

Tertiary-; carbonate-rocks; genesis-; natural-gas; geochemistry-; organic-materials; exploration-

**T1:** Geochemistry of **metastable** carbonate minerals from the Brush Creek **marine** interval {Missourian}, Indiana County., Pennsylvania.

AU: Cercone-Karen-Rose; Kime-Amy; Metehler-Scott; **Rittler-Keith**

SO: AAPG-Bulletin., 75. (8). p. 1381 YR: 1991

DE: Pennsylvania-; geochemistry-; carbonates-; Indiana-County-Pennsylvania; Brush-Creek-Formation; Eastern-U.S.; United-States; minerals-; marine-environment; environment-; Mi&sourian-; Upper-Pennsylvanian; Pennsylvania-; Carboniferous-; western-Pennsylvania; aragonite-; calcite-; shells-; X-ray-diffraction-data; **magnesian-calcite**; isotopes-; carbon-; C- $\bar{13}$ /C-12; stable-isotopes; oxygen-; O-18/O-16; bivalves-; moMusks-; precipitation-; Pharkidonotns-; recrystallization-; textures-; SEM-data; crinoids-; echinoderms-; pore-water; **early-diagenesis**; diagenesis-

**T1:** Aspects of **the** chemistry of **modern and** fossil biological apatites.

AU: **Lee-Thorp-Julia-A**; van-der-Merwe-Nikolaas-J

OS: Univ.. Cape Town., Bep. Archaeol., Randesbosch, South-Africa; Univ.. Ha., United-States; Harvard Univ., United-States.

SO: Journal-of-Arehaeological-Science. 18. (3). p. 343-354. YR: 1991

DE: carbon-; isotopes-; C-13/C-12; Mammalia-; Primates-; Pleistocene-; South-Africa.: paleontology-; stable-isotopes; bones-; teeth-; Swartkrans-; geochemistry-; collagen-; proteins-; organic-materials; apatite-; phosphates-; carbonate-apatite; infrared-spectra; mammals-; Eutheria-; Theria-; biochemistry-; Quaternary-; diet-; Southern-Africa; Africa-

**T1:** Carbon and oxygen isotope composition of lower Palaeozoic limestones .and concretions, an example of high temperature diagenesis.

AU: Buchardt-Bjorn

SO: Terra-Cognita. 4. (2). p. 219-220. YR: 1984

DE: Denmark-; geochemistry-; isotopes-; limestone-; carbonate-rocks; Scan.dlnavi.a-; Western-Europe; Europe-; Bochnholm-; geologic-thermometry; lower-Paleozoic; Paleozioc-; **O-18/O-16**; stable-isotopes; oxygen-; C-13/C-12; carbon-; IGCP-; high-temperature; diagenesis-

**H:** **Sr isotopic** variation in shallow **wafer carbonate** sequences; stratigraphie, chronostratigraphic, and eustatic implications of the record at **Enewetak Atoll**

AU: Quinn-Terrence-M; Lohrnann-K-C; Halliday-A-iSI

SO: Paleceanography. 6. (3). p. 371-385. YR: 1991

DE: strontium-; isotopes-; Sr-87/Sr-86; carbon-; C-13/C-12; oxygen-; O-18/O-16; Marshall-Islands; geochemistry-; stratigraphy-; Pleistocene-; sedimentary-rocks; carbonate-rocks; alkali ne-earth-metals; metals-; stable-isotopes; • Enewetak-Atoll; Micronesia-; Quaternary-; changes-of-level; variations-; shallow-water-environment; environment-; chronostratigraphy-; eustacy-

**T1:** **Geochemistry of Caihbro-Ordovician Arbuckle Limestone, Oklahoma; implications for diagenetic delta. (18)O alteration and. secular delta. (13)C and (87)Sr/(86)Sr variation..**

AU: Gao-Guoqiu; Land-Lynton-S SO: Geochimica-et-Cosmochimica-Acta. 55. (10).. p. 2911-2920. YR: 1991

DE: Oklahoma-; geochemistry-; isotopes-; oxygen-; O-13/O-16; carbon-; C-13/C-12; strontium-; 5r-87/5r-86; sedimentary-rocks; limestone-; Arbuckle-Group; Souihwestern-U.S.; United-States; Cambrian-; Ordovician-; carbonate-rocks; ratios-; stable-isotopes ; alkaline-earth-metals; metals-; diagenesis-; secular-variations; Slick-Hills; southwestern-Oklahoma

**T1:** **Fluorine mobility during early diagenesis of carbonate sediment; an indicator of mineral transformations.**

AU: Rude-Peter-D; Aller-Robert-C

SO: Geochimica-et-Cosmochimica-Acta. 55., (9).. p. 2491-2509.. YR: 1991

DE: fluorine-; geochemistry-; carbonate-sediments; Gulf-of-Mexico; diagenesis-; indicators-; halogens-; migration-of-elements; sediments-; early-diagenesis; marine-sediments; Florida-Bay; North-American-Atlantic; North-Atlantic; Atlantic-Ocean; pore-water; fluoride-ion; mobility-

**T1:** **Paleolimnologica**] signatures from, carbon and oxygen Isotopic ratios in carbonates from organic carbon-rich lacustrine sediments..

AU: **Talbot-M-R; Kelts-K**

SO: AAPG-Memoir.50.p.99-112. YR: 1990

DE: Ghana-; geochemistry-; isotopes-; sediments-; carbonate-sediments; sedimentary-petrology; carbon-; oxygen-; ratios-; lacustrine-environment; environment-; organic-carbon; organic-materials; carbonates-; **paleolimnology**-; West-Africa; Africa-; Lake-Bosumtwi; diagenesis-; water-; mineral-composition; **paleohydrology**-; processes-; salinity-

**T1:** Carbon dioxide in the Paleozoic atmosphere; **evidence** from carbon -isotope compositions of p e do genie carbonate.

AU: Mora-Claudia-I; Driese-Steven-G; Seager-Paula-G

SO: Geology-(Boulder). 19. (10). p. 1017-1020. YR: .1991

DE: Pennsylvania-; stratigraphy-; Paleozoic-; carbon-; isotopes-; C-13/C-12; sedimentary-rocks; clastic-rocks; Paiesols-; paleoclimatology-; Bloomsburg-Fo.rmati.on; C'atskill-Formation; Mauch-Chunk-Formation; paleoatmosphere-; carbon^lioxide; stable-isotopes; red-beds; Eastern-U.S.«; United-States; central-Pennsylvania; soils-; clayston.e-; atmospheric-pressure;; fluvial-environment; en.viron.men-; deltaic-environment:

**T1:** **Influence** of deep-sea **benthic** processes **on** atmospheric CO2.

AU: Sundquist-E-T

SO: Mathematical-and-Physical-Sciences. 331. (1616). p. 155-165. YR: 1990

BE: geochemis-try-; geochemical-cycle; carbon-; atmosphere-; sediments-; marine-sediments; diagenesi.s-; carbon-dioxide; deep-sea-environment;; environment-; processes-; sea-water; solution-; **carbonate-sediments**; buffers-; **models**-

**T1:** Calcium carbonate: preservation In. the ocean.

AU: Emerson-S-R; Archer-D

SO: Mathematical-and-Physical-Sciences. 331. (1616). p. 29-40.. YR: 1990

DE: Indian-Ocean; oceanography-; sediments-; marine-sediments; geochemistry-; Atlantic-Ocean; carbon-; sea-water; calcium-carbonate.; sediment-water-interface; preservation-; degradation-; solution-; saturation-; organic-materials; deep-sea-environment; environment-; organic-carbon; sedimentary-petrology; processes-; models-

**T1:** **Geochemical differences between subtropical (Ordoviciait), cool-temperate (Recent and Pleistocene) and subpolar carbonate, Tasmania, Australia..**

AU: Prasada-Rao-C

SO: Carbonates-and-Evaporites. 6. (1). p. 82-106.. YR: 1991

DE: Tasmania-;\*\* sedimentary-petrology; sedimentary-rocks; carbonate-rocks; environment-; geochemistry-; oxygen-; isotopes-; O-18; carbon-; C-13; Australia-; Australasia-; Permian-; Pleistocene-; Quaternary-; **Holocene**-; temperate-environment; subpolar-environment.; subtropical-environment; Ordovician-; classification-; stable-isotopes ; trace-elements

**T1:** **Chemical and isotopic evolution of fluids** in the active Long Valley hydrothermal system.,

AU: Peterson-Maria-L; White-Art-F

SO: 1989 annual meeting,, Abstracts-with-Programs-Geolpgical-Society-of-America.. 21. (6). p. A85 YR: 1989

- DE: California-; geochemistry-; isotopes-; Pacific-Coast; Western-Ö.S.; United-States; evolution-; Long-Valley-Caldera; topography-; hydrology-; hydrogen-; D/H-; stable-isotopes; deuterium-; oxygen-; O-18/O-16; rainfall-; seasonal-variations; tuff-; pyroclastics-; volcanic-rocks; carbon-; C-13/C-12; carbonate-rocks; geologic-thermometry; temperature-; pH-; kinetics-; sulfates-; sulfides-
- TI: delta (18)O and delta (13)C stable Isotope geochemistry of dolomitized defrital calcites of the Los Jvionegros Group, southeastern Ebro Basin.» Spain.
- AU: Peterson-Jonathan-D
- SO: AAPG-Butietie. 74., (5). p. 739-740 Y.R: 1990
- DE: Spain-; sedimentary-petrology; diagenesis-; geochemistry-; isotopes-; Iberian-Peninsula; Southern-Europe; Europe-; oxygen-; O-18/O-16; stable-Isotopes; carbon-; C-13/C-12; dolomitization-; calcite-; carbonates-; Los-Monegros-Group; Ebro-Basin; lacustrine-environment; environment-; limestone-; carbonate-rocks; lithocalcarenite-; paleogeography-; pore-water
- TI: Petroleum potential of the Upper Ordovician Maquoketa Group in Illinois; a coordinated geological and geochemical study,
- AU: Crockett-Joan-E; Knige-Michael-A; Oltz-Donald-F
- SO: AAPG-Bulletin. 74. (5). p. 636 YR: 1990
- DE: Illinois-; economic-geology; petroleum-; Maquoketa-Formation; New-Albany-Shale; Midwest-; United-States; possibilities-; Upper-Ordovician; Ordovician-; geochemistry-; shale-; clastic-rocks; carbonate-rocks; source-rocks; lithosratigraphy-; Rock-Eval; pyrolysis-; maturity-; pristane-; alkanes-; aliphatic-hydrocarbons; hydrocarbons-; organic-materials-; phytane-; steroids-; isomers-; lithofacies-; sandstone-; migration-; stratigraphic-traps-; traps-; Cottage-Grove-Fault
- TI: Pakoclimatic controls on stable oxygen and carbon isotopes in caliche of the: Abo Formation (Penman), south-central New Mexico, U.S.A,
- AU: Mack-Creg-H; Cole-David-R; Giordano-Thomas-H ; Schaal-William-C; Barcelos-Jose-H
- SO: Journal-of-Sedimentary-Petrology. 61. (4). p. 458-472. YR: 1991
- DE: New-Mexico; stratigraphy-; Permian-; paleoclimatology-; Isotopes-; sedimentary-rocks; caliche-; carbonate-rocks; oxygen-; O-18/O-16; carbon-; C-13/C-12; sedimentation-; deposition-; environment-; Abo-Formation; Southwestern-U.S.; United-States; stable-isotopes; south-central-New-Mexico
- TI: Isotopes in. dimatological studies.,
- AU: Rozanski-Kaziraez; Gonfanti-Roberto
- SO: International-Atonile-Energy-Agency-Bulletin 32 (4) B 9-IS YR: 1990
- DE: isotopes-; analysis-; climate-- paleoclimatology-; indicators-; atmosphere-; research-; meteorology-; techniques-; ocean-circulation; marine-environment; environment-; ice-caps; terrestrial-environment-polar-environment; changes- ; marine-sediments ; lake-sediments ; ground-water; calcium-carbonate; circulation-; data-bases; models-; precipitation-; geochemistry-
- TI: Carbonate minerals in glacial sediments; geochemical ciues to palaeoenvironment.
- AU: Fairchiid-lan-J; Spiro-Bamch
- SO: Geological-Society-Special-Publlications,. .53. p 201-?16, YR- 1990
- DE: sediments-; carbonate-sediments; glaciomarine-environment; minerals-; carbonates-; occurrence-; sedimentation-; transport-; glacial-transport-; environment-; paleoenvironment-; Quaternary-; chemostratigraphy-; geochemistry-; IGCP-; Proterozoic-; upper-Precambrian; Precambrian-; recrystallization-
- TI: Events leading to global phosphogenesis around the Proterozoic/Cambrian boundary.
- AU: Donnelly-T-H; Shergold-J-B; Southgate-P-N; Barnes-C-J
- SO: Geological-Society-Special-Publlications. 52. p. 273-287 YR- 1990
- DE: diagenesis-; processes-; phosphatization-; sedimentation-; environment-; anaerobic-environment; isotopes-; ratios-; stable-isotopes; strontium-; Sr-87/Sr-86; carbon-; C-13/C-12; global-; upper-Proterozoic; Proterozoic-; Lower-Cambrian; Cambrian-; boundary-; alkaline-earth-metals; metals-; marine-environment; IGCP-; organic-materials; carbonate-rocks; geochemistry-; phosphorus-
- TI: Ptecambridge/C<sup>13</sup>isotopic boundary problem; carbon isotope correlations for Vendian and Tommotian time between Siberia and Morocco.
- AU; Magaritz-Mordeckai; Kiischvink-Joseph-L; Latham-Andrew-J; Zhuravlev-A-Yu; Rozanov-A-Yu
- SO: Geology-(Bonlder). 19. (8). p. 847-850. YR: 1991
- DE: USSR-; stratigraphy-; Pfoterazoic-; Morocco-; Cambrian-; isotopes-; carbon-; C-13/C-12; sedimentary-rocks; carbonate-rocks; geochemistry-, Siberia-; North-Africa; Africa-; upper-Precambrian ; Precambrian-; Vendian-; Tommotian-; Lower-Cambrian ; boundary-; correlation-; chemostratigraphy-; stable-isotopes; fluctuations-; cycles-; Anti-Atlas; Siberian-Platform-sections-; IGCP-
- TI: Oxygen-isotope composition of diagenetic calcite in organic-rich rocks; evidence for (18)O depletion in marine anaerobic pore water.
- AU: Sass-Eytan; Bein-Amos; Almogi-Labin-Ahuva
- SO: Geology-(Boulder). 19. (8). p. 839-842.
- YR: 1991
- DE: Israel-; geochemistry-; isotopes-; oxygen-; 0-38/O-16; diagenesis-; sedimentary-rocks; carbonate-rocks; Middle-East; Asia-; stable-isotopes; calcite-; carbonates-; organic-materials; marine-environment; environment-; pore-water; anaerobic-environment; Upper-Cretaceous; Cretaceous- ; SEM-data; foraminifers- ; microfossils-; paleo-oceanography; bicarbonate-Ion
- TI: Geobemical studies of subsurface carbonate rocks.
- AU: Erickson-R-L; Erickson-M-8; Mosier-E-L; Chazin-Barbara
- OS: U. S. Geol. Surv., United-States; U. S. Geol. Surv., United-States
- SO: Geological-Survey-Bulletin. p. 51-52. YR: 1991
- DE: Missouri-; geochemistry-; carbonate-rocks; sedimentary-rocks; surveys-; Polk-County-Missouri; Greene-County-Missouri; Dallas-County-Missouri; Laclede-County-Missouri; Webster-County-Missouri; Wright-County-Missouri; USGS-; Midwest-; United-States; southwestern-Missouri; Springfield-Quadrangle; cores-
- TI: Determination of carbonate carbon in geologic materials: by coulometric titration.
- AU: Brandt-Elai-ne-L; Aroscauge-Philip-J; Papp-Clara-S-E
- SO: Geological-Survey, p. 68-72, YR: 1990
- DE: chemical-analysis; techniques-; sample-preparation; carbon-; analysis-; USGS-; titration-; coulometry-; carbonates-
- TI: Carbon and oxygen isotope trends of Precambrian-Cambrian carbonates from Lesser Himalaya» India.
- AU: Tewari-Vinod-C
- OS: Wadia Inst. Himalayan Geol., Dehra Dun, India YR: 1990
- CN: Himalayan geology seminar, Dehra Dun, April 4-7, 1990
- DE: India-; geochemistry-; isotopes-; sedimentary-rocks; carbonate-rocks; ^ Lesser-Himalayas; Indian-Peninsula; Asia-; Precambrian-; Cambrian-; Deoban-Formation; Riphean-; upper-Proterozoic; Proterozoic-; Vendian-; Krol-Formation; C-13/C-12; stable-isotopes' carbon-; ratios-; oxygen-; O-18/O-16; Tommotian-; Lower-Cambrian'

variations-; sedimentation-; evolution-; cyclic-processes; atmosphere-; oceanography-

TI: Characterization of tar from a carbonate reservoir in Saudi Arabia; Part I., Chemical aspect.

AU: Harouaka-A-S; Asar-H-K; Al-Arfaj-A-A; Al-Husaini-A-H; Nofid-W-AYR: 1991

DE: Saudi-Arabia; geochemistry-; organic-materials; engineering-geology; petroleum-engineering; reservoir-rocks; chemical-analysis-; methods-; chromatography-; Arabian-Peninsula; Asia-; carbonate-rocks; characterization-; tar-; sampling-; thermal-analysis; X-ray-analysis

TI: The influence of limestone stability on the interpretation of geochemical processes occurring in the saltwater-freshwater mixing zone.

AU: Wicks-Caiol-M; Heiman-Janet-S; Randazzo-Anthony-F; Jee-Jonathan-L

SO: Abstracts-with-Promgrams-Geological-Society-of-America. 22. (7). p. 63 YR: 1990

DE: Florida-; hydrogeology-; ground-water; Horidan-Aquifer; Southeastern-U.S.; Eastern- U.S.; United-States; Central-Florida; west-central-Florida; limestone-; carbonate-cocks; aquifers-; geochemistry-; hydrogeochemistry-; salt-water; fresh-water; solubility-

TI: Radium isotopes» alkaline earth diagenesis, and age determination of travertine from Mammoth Hot Springs, Wyoming» U.S.A.

AU: Sturchio-Neil-C

SO: Applied-Geochemistry. 5. (5-6). p. 631-640. YR: 1990

DE: Wyoming-; geochemistry-; isotopes-; sedimentary-rocks; carbonate-rocks; travertine-; radium-; Ra-228/Ra-226; Park-County-Wyoming; Mammoth-Hot-Springs; Western-U.S.; United-States; Yellowstone-National-Park; alkaline-earth-metals; metals-; radioactive-isotopes; diagenesis-; sedimentary-petrology; absolute-age; Quaternary-

TI: Manganese contents of some rocks of Silurian, and Devonian ages in Northwest Virginia»

AU: Cox-Leslie-J

OS: U. S. Geol Surv., United-States; U. S. Geol. Surv., United-States

SO: Geological-Survey-Bulletin. p. B1-B16. YR: 1991

DE: Virginia-; geochemistry-; trace-elements; economic-geology; manganese-ores; mineral-deposits; genesis-; supergene-processes; sedimentary-rocks; manganese-; carbonate-rocks; Shenandoah-County-Virginia; Frederick-County-Virginia; Rockingham-County-Virginia; Helderberg-Group; USGS-; Southeastern-U.S.; Eastern-US-; United-States; northwestern-Virginia; Silurian-; Devonian-; lower-Paleozoic; Paleozoic-; metal-ores; metals-; sedimentation-; marine-environment; environment-; shallow-water-environment; mineral-deposits, -genesis

TI: Manganese contents of some lower Paleozoic carbonate rocks of Virginia.

AU: Force-Eric-R

SO: Geological-Survey-Bulletin. p. A1-A.9. YR: 1991

DE: Virginia-; economic-geology; manganese-ores; sedimentary-rocks; geochemistry-; manganese-; carbonate-rocks; mineral-deposits; genesis-; supergene-processes; Clarke-County-Virginia; Shenandoah-County-Virginia; Giles-County-Virginia; Buchanan-County-Virginia; Montgomery-County-Virginia; Grayson-County-Virginia; Carroll-County-Virginia; Botetourt-County-Virginia; Washington-County-Maryland; Shady-Dolomite; Knox-Group; USGS-; Southeastern-U.S.; Eastern-U.S.; United-States; western-Virginia; Maryland-; northwestern-Maryland; metals-; lower-Paleozoic; Paleozoic-; mineral-deposits, -genesis; metal-ores; marine-environment; environment-; shallow-water-environment; geochemical-controls; sedimentation-; hydrogeological-controls

TI: Manganese contents of some sedimentary rocks of Paleozoic age in Virginia.

AU: Force-Eric-R; Cox-Leslie-J

SO: Geological-Survey-Bulletin. 25 p. YR: 1991

DE: Virginia-; geochemistry-; manganese-; carbonate-rocks; sedimentary-rocks; Shady-Dolomite; Knox-Group; Oriskany-Sandstone; Helderberg-Group; USGS-; Southeastern-U.S.; Eastern-U.S.; United-States; metals-; Paleozoic-; manganese-oxides; oxides-; manganese-ores; metal-ores; Appalachians-; North-America

TI: Devonian dolomites from the Holy Cross Mts.» Poland; a new concept of the origin of massive dolomites based on pétrographie and isotopic evidence.

AU: Migaszewski-Zdzislaw-M

SO: Journal-of-Geology. 99. (2). p. 171-187. YR: 1991

DE: Poland-; sedimentary-petrology; sedimentary-rocks; carbonate-rocks; dolostone-; isotopes-; carbon-; C-13/C-12; oxygen-; O-18/O-16; diagenesis-; dolomitization-; evolution-; Central-Europe; Europe-; Swiety-Krzyz-Mountains; genesis-; petrography-; Upper-Devonian; Devonian-; clay-mineralogy; pyrite-; sulfides-; stable-isotopes

TI: Oceanic ferromanganese geochemistry..

AU: Ancirev-Sergei-J (Andreyev, Sergey I.)

OS: VNIIQkeangeoL, Leningrad, USSR

SO: AAFG-Bulletin, 74. (6). p. 958 YR: 1990

DE: nodules-; ferromanganese-composition-; geochemistry-; classification-; metals-; carbonate-compensation-depth; diagenesis-; sedimentary-processes; hydrothermal-processes

TI: A fluid inclusion and stable isotope study of synmetamorphic copper ore formation at Mount Isa, Australia reply.

AU: Heinrich-Christoph-A; Andrew-Anita-S; Wilkins-Ronald-W-T; Patterson-David-J

SO: Economic-Geology-and-the-Bulletin-of-the-Society-of-Economic-Geologists. 86. (1). p. 206-207. YR: 1991

DE: Queensland-; geochemistry-; isotopes-; fluid-inclusions; P-T-conditions; greenschist-facies; copper-ores; stable-isotopes; carbon-; C-13/C-12; oxygen-; O-18/O-16; hydrogen-; D/H-; mineral-deposits; genesis-; metamorphic-processes; deuterium-; ore-forming-fluids; Australia-; Australasia-; metal-ores; economic-geology Mount-Isa; inclusions-; mineral-deposits »genesis; deformation-; breccia-; clastic-rocks; dolostone-; carbonate-rocks; zoning-; geologic-thermometry; greenstone-; schists-; paleosalinity-- alteration-; Urquhart-Shale; pH-; cooling-; mineral-assemblages; crystallization-; calcium-chloride; homogenization-

TI: Geochemical evidence supporting T. C. Chamberlin's theory of glaciation.

AU: Raymo-M-E

SO: Geology-(Boulder). 19. (4). p 344-347. YR: 1991

DE: biography-; general-; Chamberlin-; T.-C; glacial-geology; glaciation-; causes-; atmosphere-; geochemistry-; carbon-dioxide; weathering-; chemical-weathering; effects-; strontium-; isotopes-; Sr-87/Sr-86; sedimentary-rocks; carbonate-rocks; Phanerozoic-; stratigraphy-; paleoclimatology-; global-; Chamberlin-T.-C, history-; ancient-ice-ages; degassing-; composition-; paleoatmosphere-; orogeny-; rates-; silicates-; alkali-earth-metals; metals-; stable-isotopes; paleo-oceanography; erosion-

TI: Manganese carbonate bands as *sin* indicator of hemipelagic sedimentary environments.

AU: Sugisaki-Ryuichi; Sugitani-Kenichiro; Adachi-Mamoru

SO: Journal-of-Geology. 99. (1). p. 23-40. YR: 1991

DE: Japan-; geochemistry-; manganese-; sedimentary-rocks; sedimentation-; environment-; hemipelagic-environment-; minerals-; carbonates-; rhodochrosite-; isotopes-; oxygen-; O-18/O-16; carbon-; C-13/C-12; metals-; banded-materials; carbon-dioxide; chert-; chemically-precipitated-rocks; Paleozoic-; Mesozoic-; Holocene-; Quaternary-; geochemical-indicators; Far-East; Asia-; Honshu-; Mino-Belt; stable-isotopes ; geochemical-profiles

**TI:** Subduction and accretion of the Permanente Terrane near<sup>1</sup> San Francisco, California.

AU: Larue-D-K; Barnes-I; Sedlock-R-L

SO: Tectonics.. 8. (2). p. 221-235.. YR: 1989

DE: California-; tectonophysics-; plate-tectonics; San-Francisco-County-California; Franciscan-Formation; Calera-Limestone; Pacific-Coast; Western-U.,S.; United-States; San-Francisco-California; Pennantene-Terrane; structural-geology; tectonics-; limestone-; carbonate-rocks; subduction-; geochemistry-; "faults-; evolution-; faciès-; deformation-; greenstone-; schists-

**TI:** Carbon Isotope variations in Cambrian-Proterozoic rocks; a case for secular **global trend**.

AU: Banerjee-D-M

SO<sup>1</sup>: Developments-in-Prccambrian-Geology.. 8. p., 453-470. YR: 1990

DE: Asia-; geochemistry-; isotopes-; carbon-; C-13/C-12; sedimentary-rocks; carbonate-rocks; Lower-Cambrian; Cambrian-; Proterozoic-; upper-Precambrian; Precambrian-; stable-isotopes; India-; Indian-Peninsula; Pakistan-; Mongolia-; Far-East; variations-; ratios-

**TI:** Geochemistry of Precambrian carbonates; 3-shelf seas and non-marine environments of the Arcean\*

AU: Veizer-Jan; Clayton-Robert-N; Hin-ton~R-W; von-Brunn-Victor; Mason-T-R; Buck-S-G; Hoefs-Jochen

SO<sup>1</sup>: Geochimica~et-Cosmochimica-Acta. 54. (10). p. 2717-2729. YR: 1990

DE: South-Africa; geochemistry-; isotopes-; Western-Australia; sedimentary-rocks; stable-isotopes; sea-water; carbonate-rocks; sediments-; carbonate-sediments; strontium-; Sr-87/Sr-86; oxygen-; O-1,8/O-16; carbon-; C-13/C-12; Precambrian-; Archean-; shelf-environment; environment-; Southern-Africa; Africa-; Australia-; Australasia-; Pongola-Supergroup; Hameisley-Group; alkaline-earth-metals; mélais-; tectonics-; marine-sediments; playas-; dolostone-; chemical-composition; lacustrine-environment; Venterdorp-Supergroup; Fortescue-Group; trace-elements; iron-; manganese-

**TI:** Ec.log.itk metamorphism in carbonate rocks; the example of impure: marbles from, the Sesia-Lanzo Zone, Italian Western Alps..

AU: Castelli-D

SO: Journal-of-Metamorphic-Geology. 9., (1). p. 61-77. YR: 1991

DE: Alps-; petrology-; metamorphism-; Italy-; P-T-conditions; high-pressure; metamorphic-rocks; faciès-; eclogite-faciès; Europe-; Southern-Europe; carbonate-rocks; marbles-; Sesia-Lanzo-Zone; Western-Alps; geochemistry-; electron-probe-data-; absorption-; X-ray-specra; chemical-composition; IGCP-

**TI:** Glacial to Holocene changes; in carbonate and clay sedimentation in the Equatorial Pacific Ocean estimated from thorium 230 profiles-.

AU: Yang-Yong-Liang; Eiderfield-Henry; Ivanovich-Miro

SO: Paleoceanography. 5. (5), p. 789-809. YE: 1990

DE: Pacific-Ocean; stratigraphy-; Quaternary-; thorium-; isotopes-; Th-230; sedimentation-; sedimentation-rates; deep-sea-sedimentation; geochemistry-; processes-; solution-; sediments-; marine-sediments; Equatorial-Pacific; actinides-; metals-; radioactive-isotopes; carbonate-sediments; glaciomarine-environment; environment-; postglacial-environment; marine-environment; geochemical-indicators; upper-Pleistocene; Pleistocene-; Holocene-; geochemical-profiles; paleo-oceanography; clay-; clastic-sediment's

**TI:** Tracers of ocean paleoproductivity and paleochemistry; an introduction..

AU: Elderfield-Henry

SO: Paleoceanography. 5. (5). p. 711-718. YR: 1990

DE: sediments-; marine-sediments; geochemistry-; paleoecology-; indicators-; mari.n.e.-envi.ronment; productivity-; environment-; geochemical-indicators; cadmium-; metals-; barium-; alkaline-earth-

metals; calcium-; ratios-; paleo-oceanography; radioactive-isotopes; isotopes-; geochemical-profiles; carbonate-sediments; tracers-

**TI:** Isotopic studies of calcite, pyrite, and wood from glacial deposits in the Beardmore Glacier area» Transantarctic Mountains.

AU: Hagen-Erik-H; Fauie-Gunter; Jones-Lois-M

SO: • Antan^c-Journal-of-the-United-States. 24. (5). p. 67-68, YR: 1989

DE: glacial-geology; glacial-features; debris-; absolute-age; dates-; sediments-; Antarctica-; geochronology-; Paleozoic-; isotopes-; analysis-; sulfur-; S-34; Beardmore-Glacier; Polar-regions; Transantactic-Mountains; C-13; stable-isotopes; carbon-; O-18; oxygen-; Sr-87/Sr-86; alkaline-earth-metals; metals-; strontium-; glacial-sedimentation; glacial-environment; environment-; limestone-; carbonate-rocks; pyrite-; sulfides-; wood-; Shackleton-Limestone; Sirius-Fbrmation; East-Antarctica

**TI:** Primary and diagenetic controls of isotopic compositions of iron-formation carbonates.

AU: Kaufman-Alan-J; Hayes-J-M; Klein-C

SO: Geochimica~et-Cosmochimica-Acta.. 54. (12).. p.. 3461-3473.

YR: 1990

DE: Western-Australia; geochemistry-; sedimentary-rocks; diagenesis-; effects-; carbonate-rocks; isotopes-; ratios-; carbon-; C-13/C-12; oxygen-; Q'-18/O-16; iron-formations; chemically-precipitated-rocks; lower-Proterozoic; Proterozoic-; upper-Precambrian; Precambrian-; Dales-Gorge-Member; Brockman-Iron-Formation; Australia-; Australasia-; Hamersley-Group; stable-isotopes

**TI:** Geochemistry of sedimentary carbonates.

AU: Morse-John-W; Mackenzie-njired-T

SO: Developments-in-Sedimentology. 48. 707' p. YR: 1990

DE: sedimentary-rocks; carbonate-rocks; geochemistry-; mineral-composition; reactions-; carbonates-; calcium-carbonate; diagenesis-; marine-environment; environment-; early-diagenesis

**TI:** (234>U - (238)ü - (230)Th - (232)Th systematics in saline groundwaters from central Missouri,

AU: Banner-Jay-L; Wasserburg-G-J; Chen-James-H; Moore-Clyde-H

SO: Earth-and-Planetary-Science-Letters. 101. (2-4). p. 296-312. YR: 1990

DE: Missouri-; hydrogeology-; ground-water-; geochemistry-; radioactive-isotopes; isotopes-; uranium-; U-238/U-234; thorium-; Th-232/Th-230; Midwest-; United-States; central-Missouri; salt-water; salinity-; artesian-waters; springs-; Mississippian-; Carboniferous-; Ordovician-; sandstone-; clastic-rocks; carbonate-rocks; aquifers-; hydrochemistry-; actinides-; metals-; radioactive-decay; brines-; pollution-

**TI:** Relationships between organic matter and metalliferous deposits in lower Palaeozoic carbonate formations in China.

AU: Jia-R; Liu-D; Fu-J

SO: Special-Publication-of-the-International-Association-of-Sedimentologists, (11). p. 193-201. YR: 1990

DE: China-; economic-geology; metal-ores; mineral-deposits; genesis-; controls-; geochemical-controls; Far-East; Asia-; carbonate-rocks; upper-Paleozoic; Paleozoic-; organic-materials; Southern-China; mineral-depositsgenesis; trace-elements; interpretation-; migration-of-elements; asphalt-; bitumens-; IGCP-

**TI:** Stable isotopic and trace elemental study of diagenetic styles in adjacent transgressiv-regressive (T-R) units.. Middle' Devonian Cedar Valley Group.

AU: Plocher-O-W; Ludvigson-G-A; Gonzalez-L-A

SO: Abstracts-vnth-Programs-Geological-Society-of-America. 22. (5), p. 42YR: 1990

DE: Iowa-; stratigraphy-; Devonian-; oxygen-; isotopes-; G-1.8/0-16; carbon-; C-13/C-12; sedimentary-rocks; carbonate-rocks; Invertebrates-; geochemistry-; diagenesis-; cementation-; geochemistry-; trace-elements; Cedar-Valley-Formation; Coralville-Member; Littleton-Member; Midwest-; United-States; transgression-; regression-; Givetian-; Middle-Devonian; petrography-

TI: Anatomy of a Middle **Ordovician** carbon isotope excursion; preliminary carbon and oxygen **isotopic** data from limestone components in the **Decorah** Formation, Galena Group, eastern Iowa.

AU: Ludvigson-G-A; Witzke-Brian-J; Lohmann-K-C; Jacobson-S-J  
SO: Abstracts-with-Programs-Geological-Society-of-America.. 22. (5). p. 39 YR: 1990

DE: Iowa-; geochemistry-; isotopes-; carbon-; C-13/C-12; oxygen-; O-18/O-16; sedimentary-rocks; limestone-; invertebrates-; geochemistry-; **Decorah-Shale**; eastern-Iowa; Midwest-; United-States; **Galena-Dolomite**; carbonate-rocks

TI: Trace-element distribution across **calcite** veins; a tool for genetic interpretation.

AU: Erd-Yigal; Katz-Amkai  
SO: Chemical-Geology. 85. (3-4). p. 361-367. YR: 1990

DE: Israel-; geochemistry-; trace-elements; sedimentary-rocks; carbonate-rocks; chalk-; crystal-chemistry; carbonates-; calcite-; Middle-East; Asia-; Judean-Desert; Menuha-Formation; Santonian-; Senonian-; Upper-Cretaceous; Cretaceous-; veins-; geochemical-profiles; dolomitization-; solution-; epigenetic-processes-; extension-; crystal-growth

**TI: Stratigraphic shifts in carbon isotopes from Proterozoic stromatolitic carbonates (Mauritania); influences of primary mineralogy and diagenesis.**

AU: Fairchild-I-J; Marshall-J-D; Berrand-Sarfati-J  
SO: American-Journal-of-Science. 290-A.. p. 46-79. YR: 1990  
DE: Mauritania-; stratigraphy-; Proterozoic-; carbon-; isotopes-; C-13/C-12; diagenesis-; materials-; stromatolites-; **sedimentary-structures**; **biogenic-structures**; sedimentary-rocks; carbonate-rocks; geochemistry-; IGCP-; West-Africa; Africa-; upper-Ptocabrian; Ptocabrian-; Atar-Group; stable-Isotopes; ultrastructure-; fractionation-; algae-; paleo-oceanography; **chemostratigraphy**-

**TI: Carbon isotope shifts in Fennsylvanian seas.**

AU: Magaritz-Mocdeckai; Holser-William-T  
SO: American-Journal-of-Science. 290. (9). p. 977-994 YR: 1990  
DE: New-Mexico-; geochemistry-; isotopes-; Pennsylvania-; stratigraphy-; paleo-oceanography; carbon-; C-13/C-12; sedimentary-rocks; carbonate-rocks; Nevada-; Carboniferous-; Southwestern-U.S.; United-States; southwestern-New-Mexico; Big-Hatchet-Peak; stable-isotopes; marine-environment; environment-; Western-U.S.; Arrow-Canyon; paleoatmosphere-; geochemical-profiles

**TI: Extreme (13)C depletions in seawater-derived brines and their implications for the past geochemical carbon cycle.**

AU: Lazar-Boaz; Erez-Jonathan  
SO: Geology-CBoulder. 18. (12).. p. 1191-1194. YR: 1990  
DE: sea-water; geochemistry-; carbon-; isotopes-; C-13/C-12; geochemical-cycle; ecology-; observations-; hypersaline-environment; Israel-; Red-Sea; stable-isotopes; brines-; salinity-; evaporites-; chemically-precipitated-rocks; carbonate-rocks; organic-materials; microbial-mats; sediments-; fractionation-; photosynthesis-; environment-; Middle-East; Asia-; Indian-Ocean; Gulf-of-Aqaba

**TI: Paleomagnetism of the Cambrian Rover Dolomite and Fensylvanian Collings Ranch Conglomerate, southern Oklahoma; an early Paleozoic magnetization and nonpervasive remagnetization by weathering,**

AU: Nick-Kevin-E; Ehnoe-R-Douglas  
SO: Geological-Society-of-America-Bulletin. 102. (11). p. 1517-1525. YR: 1990

DE: Oklahoma-; stratigraphy-; Pennsylvanian-; Cambrian-; paleoma.gnetism-; Paleozoic-; isotopes-; sedimentary-rocks; stable-isotopes; oxygen-; G-18/0-16; carbon-; C-13/C-12; Carter-County-Oklahoma; Miuxay-County-Oklahoma; Collings-Ranch-Conglomerate; Royer-Dolomite; **Southwestern-U.S.**; United-States; **south-central-Oklahoma**; **Arbuckle-Mountains**; **Carboniferous**-; dolostone-; carbonate-rocks; conglomerate-; clastic-racks; weathering-; remagnetization-; dedolomitization-; karstification-; chérmical-remanent-magnetization; **lemanent-magnetization**; magnetization-; SEM-data; natural-remanent-magnetization; depositional-remanent-magnetization; pole-positions

**TI: The influence of growth mechanism and surface structure on the partitioning of trace elements into minerals; examples from carbonate minerals.**

AU: Reeder-Richard-J  
SO: Chemical-Geology, 84. (1-4). p. 305 YR: 1990  
DE: crystal-chemistry; carbonates-; calcite-; crystal-growth; partitioning-; diagenesis-; trace-elements; **crystal-structure**

**TI: Dolomites; reconciling modern sample with the ancient record.**

AU: McKenzie-J-A  
OS: ETH Geol. Inst., Zurich, Switzerland; Univ. Aix-Marseille II, Lab. Geosci. Environ.» Marseilles, France  
SO: Chemical-Geology., 84. (i-4), p. 190-191 YR: 1990  
DE: diagenesis-; dolomitization-; sebkha-environment; environment-; dolomite-; carbonates-; dolostone-; carbonate-rocks

**TI: Carbon and oxygen isotopic evidence for iron-formation-depositional conditions; Gneiss Flint Formation, Thunder Bay region, Ontario, Canada.**

AU: Cairigan-W-J; Cameran-E-M  
• SO: Abstracts-with-Programs-Geological-Society-of-America.. 21. (6). p. 24 YR: 1989  
DE: Ontario-; stratigraphy-; Proterozoic-; Eastern-Canada; Canada-; upper-Precambrian; **Precambrian**-; isotopes-; carbon-; C-1.3/C-12; stable-Isotopes; oxygen-; O-18/O-16; kon-focmations; chemically-precipitated-rocks; deposition-; Gunflint-Formation; Thunder-Bay; limestone-; carbonate-rocks; dolostone-; siderite-; carbonates-; black-shale; clastic-rocks; chert-; precipitation-; organic-materials; **iron**-; **metals**-

**TI: Evolution of mississippian valley-type (MVT) brines in Lower Ordovician carbonate rocks of the Appalachian Orogen.**

AU: Kesler-Stephen-E  
SO: Abstracts-with-Programs-Geological-Society-of-America.. 21. (6). p. 3 YR: 1989

DE: Appalachians-; economic-geology; base-metals; North-America;; evolution-; mississippi-valley-type; metal-ores; Lower-Ordovician; Ordovician-; carbonate-rocks; Appalachian-Phase; sphalerite-; stibifides-; dolomite-; carbonates-; **fluorite**-; fluorides-; halides-; barite-; sulfates-; paragenesis-; Isotopes-; strontium-; **alkaline-earth-metals**; metals-; **Sr-87/Sr-86**; stable-isotopes; brines-; fluid-inclusions; inclusions-; East-l'enne&see-Field; solubility-; Tennessee-; Southern-U.S.; United-States; Pennsylvania-; Eastern-U.S.; Newfoundland-; Eastern-Canada; Canada-; **ore-forming-fluids**; mineral-deposits-; genesis

**TI: Bolomittization of Lower Cambrian carbonate platform during deep burial, Virginia Appalachians, USA.**

AU: Barnaby-R-J; Read-J-F  
• SO: Internat. Geologcal Congress,-Abs:tracts-Congres-Geologique-Internationale,-Résumés. 28. (1). p. 89-90. YR: 1989

DE: Virginia-; sedimentary-petrology; diagenesis-; Appalachians-; Shady-Dolomite; Southeastern-U.S.; Eastern-U.S.; United-States; North-America; stratigraphy-; Cambrian-; Lower-Cambrian; dolomitization-; carbonate-platforms; cathodoluminescence-; brecciation-; C-13/C-12; isotopes-; stable-isotopes; carbon-; O-18/O-16; oxygen-; strontium-; alkaline-earth-metals; metals-- Sr-87/Sr-86; iron-; manganese-; marine-environment; environment-; cement-; solution-; fluid-inclusions; Inclusions-

TI: The carbon- and oxygen-Isotope **record** of the **Precambrian-Cambrian** boundary interval in China and Iran and their correlation,

AU: Brasier-Martin-D; Magaritz-Moideckai; Corfield-Richard; Lno-Huolin; Wu-Xiche; Ouyang-Lin; Jiang-Zhiwen; Hamdi-B; He-Tinggui; Fraser-A-G

SO: Geological-Magazine. 127. (4). p. 319-332. YR: 1990

DE: China-; stratigraphy-; Cambrian-; Iran-; Proterozoic-; carbon-; isotopes-; C-13/C-12; oxygen-; O-18/O-16; invertebrates-; biostratigraphy-; USSR-; ratios-; interpretation-; Far-East; Asia-Middle-East; Yunnan-; Southwestern-China; Meishucun-; Szechwan-; Maidiping-; Vailiabad-; stiatotypes-; upper-Precambrian Precambrian-; Lower-Cambrian; upper-Proterozoic; correlation-; boundary-; diagenesis-; early-diagenesis; dolostone-; carbonate-rocks phosphate-rocks; chenually-precipitated-rocks; trilobites-; stable-isotopes; Morocco-; North-Africa; Africa-; Tommotian-; India-Indian-Peninsula; Siberia-; mollusks-; Russian-Republic

TI: Experimental study bearing on. **the absence of carbonate in mantle-derived senofiihs.**

AU: Canil-Dante

SO: Geology-CBoulder., 18. (10). p. 1.011401.3, YR: 1990

DE: magmas-; geochemistry-; dissociation-; processes-; mantle-; composition-; mineral-composition; Inclusions-; xenoliths-; **kimberlite**-; phase-equilibria; experimental-studies.; CaO-MgO-SiO<sub>2</sub>-CO<sub>2</sub>; P-T-conditions; high-pressure; peridotites-; ultramafies-; carbon-dioxide; synthesis-; decompression-; decarbonation-; carbon-

TI: **Dinantian** dolomites from East Fife; **hydrothermal** overpri.niti.ng of early **nmdng-zone** stable **isotopic** and. **Fe/Mn compositions**.

AU: Seal-A; Fallick-A-E

SO: Journal-of-the-Geological-Society-of-London. 147. (4). p. 623-638. YR: 1990

DE: Scotland-; sedimentary-petrology; sedimentary-rocks; carbonate-rocks; geochemistry-; isotopes-; oxygen-; O-18/O-16; carbon-; C-13/C-12; diagenesis-; dolomiti zati on-; Great-Britain; United-Kingdom; Western-Europe; Europe-; **Dinantian**-; Carboniferous-; limestone-; dolomite-; carbonates-; mixing-; stable-isotopes; iron-; metals-; manganese-; Saint-Monans-Syncline; Fife-; SEM-da.ta; cement-; petrography-; thin-sections; Nfid-Kinniny-Limestone; Chaiestown-Main-limestone; Saint-Monans-little-Limestone; Patfihead-Fau.lt; major-elements; calcite-; siderite-; Saint-Monans-Biecciated-limestone.; Saint-Monans-White-Iimestone

TI: **Intracrystalline** carbon and oxygen isotope **variations** in calcite revealed by laser **microsampling**.

AU: Dickson-J-A-D; Smalley-P-C; Raheim-A; Stlftoom-D-E

SO: Geology-CBoulder.). S8. (9). p. 809-81 !.. YR: 1990

DE: minerals-; carbonates-; calcite-; crystal-growth; spectroscopy-; laser-methods; techniques-; chemical-analysis; methods-; carbon-; isotopes-; C-13/C-12; oxygen-; O-18/O-16; Wales-; **Great-Britain**; United-Kingdom; Western-Europe; Europe-;; South-Wales; Aberciran-; Carboniferous-; limestone-; carbonate-rocks; vugs-; sample-preparation; stable-Isotopes; zoning-; chemical-composition-; precipitation-

TI: Glaciation and saline-freshwater mixing as a possible cause of cave formation in the eastern **Midcontinent** region of the United States; a conceptual model.

AU: Panno-Samuel-V; Bourcier-William-L

SO: Geology-(Boulder). 18. (8). p. 769-772. YR: 1990

DE: Illinois-; geomorphology-; solution-features; Michigan-; Appalachians-; caves-; glacial-geology; glaciation-; diagenesis-; effects-- karstification-- Midwest-- United-States- Illinois-Basin; Michigan-Basin; North-America; Appalachian-Basin.; Midcontinent-; genesis-; theoretical-models;; models-; karst-; salt-water; discharge-; fresh-water; ice-movement; aquifers-; limestone-; carbonate-rocks; ground-water; consolidation-; recharge-; mixing-; hydrogeochemistry-

**11: 'Channelized** fluid **flow through shear zones during fluid-enhanced** dynamic: «crystallization, Northern. **Apennines, Italy**.

AU: Carter-Karen-E; Dworkin-Stephen-I

SO: Geology-CBoulder). 18. (8). p. 720-723.. YR: 1990

DE: Italy-; structural-geology; defo.rmalion-; Apennines-; crystal-growth; carbonates-; calcite-; structural-analysis; preferred-orientation; faults-; effects-; shear-zones; field-studies;" recrystallization-; isotopes-; sedimentary-rocks; limestone-; strontium-; Sr-87/Sr-86; oxygen-; O-18/O-16; geochemistry-; trace-elements; Southern-Europe; Europe-; Northern-Apennines; liguria-; Triassic-; Portoro-Li mes tone; nappes-; fluid-phase; stable-isotopes; alkaline-earth-metals; mélais-; low-grade-metamorphism; metamorphism-; carbonate-rocks

TI: **Geochemical** and isotopic **constraints on the diagenetic history** of a massive' **stratal**, Late Cambrian (**Royer**) **dolomite**, Lower **ArfoudUe** Group» Slick Hills, **SW Oklahoma**, USA.

AU: Gao-Guoqiu

SO: Geochimica-et-Cosmochimica-Acta. 54. (7). p 1979-1989 YR-1990

DE: Oklahoma-; geochemistry-; trace-elements; diagenesis-; isotopes-; sedimentar]^rocks- ratios-; carbonate-rocks; dolostone-; oxygen-; O-18/O-16; strontium-; S.r-87/Sr-86; carbon-; C-13/C-12; Slick-Hills; Southwestern-U.S.; United-States; southwestern-Oklahoma.; Arbuckle-Group; Royer-Dolomite; Upper-Cambrian; Cambrian-; stable-isotopes; alkaline-earth-metals; metals-

TI: **Geochemical sampling and analysis:**

AU: Jones-D-G; Webb-P-C

TI: **Diagenesis** of carbonate cements in **Permo-Tr** lassie sandstones from the Iberian Range, Spain; evidence from **chemical and stable**: isotopes.

AU: Motad-S; Al-Aasm-Ihsan-Shakir; Ramseyer-Karl; Marfil-R; Aldahan-A-A

SO: Sedimentary-GeoJogy. 67. (3-4). p. 281-295. YR: 1990

DE: Spain-; stratigraphy-; Permian-; Tri.ass.i.c-; isotopes-; diagenesis-; cementation-; oxygen-; O-18/CM6; carbon-; C-B/C-12; sedimentary-rocks; clastic-rocks; sandstone-; Iberian-Peninsula; Southern-Europe; Europe-; Iberian-Mountains; cement-;; carbonates-; stable-Isotopes; dolomite-; calcite-; Guadalajara-Province; petrography-; geochemistry-

TI: Precipitation of dissolved carbonate species from **natural water for delta** (13)C analysis; a critical appraisal.

AU: Bishop-Philip-K.

SO: Chemical-Geology-Isotope-Geoscience-Section. 80. (3). p 251-259. YR: 1990

DE: chemical-analysis; techniques-; sample-preparation; carbon-; isotopes-; C-13/C-12; geochemistry-; processes-; precipitation-; stable-isotopes; natural-materials; water-; fractionation-; analysis-; experimental-studies; carbonates-

TI: Sedimentology and geochemistry of a **regional** dolostone; correlation of trace **elements** with **dolomite** fabric and texture.

AU: Shukla-Vijai

SO: Abstracts - Society - of — Economic — Paleontologists - and - Mineralogists,-Annual-Midyear-Meeting. 1986 (Vol. 3). p. 102 YR: 1986

DE: North-Dakota; geochemistry-; trace-elements; Intedake-Formation; Williston-Basin; Midwest-; United-States; diagenesis-; Silurian-; dolomitization-; dolostone-; carbonate-rocks; textures-

TI: A multkomponent carbonate-silicate model of the sedimentation process in the Precambrian oceans.

AU: Mef-nichuk-V-I

SO: Oceanology. 29. (2).. p. 203-207. YR: 1989

DE: Prcambrian-; stratigraphy-; paleo-oceanography; sedimentation-; processes-; marine-sedimentation; th.eoretical-stadi.es; mathematical-models; models-; silicates-; carbonates-; carbon-dioxide

TI: Successive pore fluid générations in a Lower Permian brine: aquifer, Palo Du.ro Basin, Texas. Panhandle, U.S.À.

AU: Hsher-R-Stephen; Posey-Harry-H; Kyle-J-Richard

SO: Applied-Geochemistry; 4. (5). p. 455-464. YR: 1989

DE: carbon-; Isotopes-; C-13/C-12; oxygen-; O-18/0-16; strontium-; Sr-87/Sr-86; water-; ratios-; Texas-; geochemistry-; sedimentary-rocks; carbonate-rocks; pore-water; Lo'wer-Permian; Permian-; brines-; Palo-Duro-Basin; Southwestern-U.S.; United-States; Panhandle-; alkaline-earth-metals; metals-; stable-isotopes

TI: Microlfthon alteration, associated with development of solution, cleavage in argillaceous limestone; textural, trace-elemental and. stable-isotopic observations.

AU: Bhagat-Snehal-S; Marshak-Stephen

SO: Journal-of-Structural-Geology. 12. (2). p. 165-175.. YR: 1990

DE: structural-analysis; interpretation-; cleavage-; oxygen-; isotopes-; O-18/0-16; New-York; structural-geology, carbon-; C-i3/C-12; sedimentary-rocks; limestone-; stron.tiu.m-; geochemistry-; manganese-; Greene-County-New-York; Albany-County-New-York; Ulster-County-New-York; Kalkberg-Limestone; Coeymans-Förmati.on; Manlius-Fonnation; Eastem-U.S.; United-States; eastern-New-York; carbonate-rocks; Hudson-River-valley; CMskill-New-York; Albany-New-York; Kingston-New-York; »crystallization-; petrofabri.es-; calcite-; carbonates-; slip-cleavage-; foliation-; micrplithons-; \*trace-elements; statistical-analysis; metals-; Lower-Devonian; Devonian-; alkaline-earth-metals; stable-isotopes

TI: Stable Isotopic systematks of the Bushveld Complex II, Constraints on hydrothermal processes in layered intrusions.

AU: Schiffries-Cralg-M; Rye-Danny-M

SO: American-Journal-of-Science. 290. (3). p. 209-245. YR: 1990

DE: South-Africa; geochemistry-; isotopes-; intrusions-; layeed-intrusions; contact-metamorphism; metasomatism-; processes-; hydrothermal-alteration; hydrogen-; D/H-; carbon-; C-13/C-12; oxygen-; O-1.8-Ö-16; mineral-deposits; genesis-; metal-o.res; hydfohemal-processes; analysis-; stable-Isotopes; Southern-Africa; Africa-; Transvaal-; Bushveld-Complex; aureoles-; metamorphism-; hydrotheimal-conditions; deuterium-; mineral-deposits,-genesis; veins-; carbonate-rocks; igneous-rocks; ore-forming-fluids

TI: Geochemistry and sedimentology of a facies transition from limestone to iron-formation deposition in the early Proterozoic Transvaal Supergroup, Sooth Africa,

AU: KMn-Cornelis; Beukes-Nicolas-J

SO' : Economic - Geology - and - the - Bulletin - of - the - Society - of-Economic-Geologists.. 84. (7). p. 1733-1774., YR: 1989

DE: Sooth-Africa; economic-geology; iron-ores; mineral-deposits; genesis-; hydrothernnal-processes; sedimentary-petrology; sedimentary-rocks; chemically-precipitated-f ocks; iron-formations; Southern-Africa; Africa-; Transvaal-Supergroup; reconstruction-; deposition-; limestone-; carbonate-rocks; dolostone-; shale-; clastic-rocks; precipitation-; regression-; models-; Kaapvaal-Craton; organic-carbon-; organic-materials; transgression-; rare-earths; metals-; East-Pacfic-Rise; Atlantic-Ocean; mi.xl.ng-; ore-fbrming-fluids; mineral-

deposits.-genesis; metal-ores; Kuruman-Iron-Formation; outcrops-; weathering-; alteration-; Danielskuil-; Kuruman-; Pomfret-Mine; as bes tos -deposit ts ; b oreh oles -

TI: Pétrographie and geochemical evidence for origin of paieospeieothems, New Mexico; Implications for the application of fluid inclusions to studies of diagenesis.

AU: Goldstein-Robert-H

SO: Journal-of-Sedimentary-Petrology. 60. (2). p. 282-292. YR: 1990

DE: New-Mexico; stratigraphy-; Mississippian-; isotopes-; sedimentary-rocks; ratios-; carbon-; C-13/C-12; oxygen-; O-18/0-16; fluid-Inclusions; geologic-thermometry; interpretation-; geochemistry-; trace-elements; diagenesis-; processes- carbonate-rocks; limestone-; Lake-Valley-Formation; Southwestern-U.S.; United-States; Carboniferous-; solution-features; paleokarst-; speleothems-; calcite-; carbonates-; stable-isotopes; inclusions-, paleosalinity-

TI: (13)C and (18)O coBiposJtions of carbonates from a cyclic carfoonate-evapoiti rock sequence; evidences for meteoric water input.

AU: Sheu-Der-Duen

SO: Chemical-Geology. 81.(1-2). p. 157-162. YR: 1990

DE: Texas-; geochemistry-; isotopes-; sedimentary-rocks; carbonate-rocks; sedimentation-; environment-; nearshore-environment; carbon-; C-13/C-12; oxygen-; Q-18/0-16; McKnight-Formation; Cretaceous-; Albian-; Lower-Cretaceous; southern-Texas; evaporites-; chemically-precipitated-rocks ; cyclic-processes ; stable-isotopes ; paleogeogra.pb.y-; .geochemical-indicators; marine-environment; fresh-water-environment; meteoric-water; subtidal-environment; intertidal-environment; rhythmic-bedding; planar-bedding-structures; sedimentary-stractares; Southwestern-U.S..; United-States

TI: Comparative study of the kinetics and mechanisms of dissolution of carbonate minerals.

AU: Chou-Lei; Garrels-Robert-M; Wollast-Roland

SO: Chemical-Geology. 78. (3-4). p. 269-282. YR: 1989

DE: geochemistry-; processes-; solution-; calcite-; carbonates-; aragonite-; magnesite-; dolomite-; experimental-studies; kinetics-; pH~; theonodynamic-properties; stoichiometry-

TI: Petrography, trace elements and oxygen and. carbon, isotopes of Gordon Group ca.rboea.tes; (Ordovician),, Florentine: Valley, Tasmania, Australia.

AU: Rao-C-Prasada

SO: Sedimentary-Geology. 66. (1-2). p. 83-97, YR: 1990

DE: Tasmania-; geochemistry-; trace-elements; sedimentary-rocks; carbonate-rocks; stratigraphy-; Ordovician-; diagenesis-; isotopes-; oxygen-;, O-18/Q-16; carbon-; C-13/01.2; Australia-; Australasia-; Florentine-Valley; Gordon-Limestone; petrography-; stable-isotopes; Arenigian-; Lower-Ordovician; Ashgillian-; Upper-Ordovician; strontium-; alkaline-earth-metals; metals-; sodium-; alkali-metals; manganese-; iron-; magnesium-; dolostone-; glacial-environment; environment-; Benjamin-Limestone; materials-; intertidal-environment; sxiptidal-environment; suftidal-environmenl; 'Casm'ons-Creek-IimestOne

TI: Did major changes in the stable-iso tope composition of Proterozoic seawater occur?.

AU: Burdett-J-W; Grotzinger-John-P; Arthur-M-A

SO: Geology-(Boulder).. 18. (3). p. 227-230. YR: 1990

DE: Northwest-Territories; geochemistry-; isotopes-; Canadian-Shield; Proterozoic-; stratigraphy-; paleo-oceanography; oxygen-; O-18/0-16; carbon-; C-13/C-12; sedimentary-rocks; carbonate-rocks; diagenesis-; Canada-; North-America; Rockwest-Fbrmation; upper-Precambran; Precambrian-; lower-Proterozoic; stable-isotopes; eary-diagenesis; dolomitization-; cementation-; oolite-; marine-environment; en vironment-

- TI: Origin of late **Precambrian** intrusive carbonates, Eastern Desert of Egypt and **Sudan**; C, O and. Sr **isotopic** evidence.  
AU: Stern-Robert-J; Gwinn-Cynthia-J  
SO: Precambrian-Researek 46.. (3).. p. 259-272., YR: 1990  
DE: Egypt-; geochemistry-; sedimentary-rocks; carbonate-rocks; isotopes-; carbon-; C-I3/C-12; oxygen-; O-18/O-16; strontium-; Sr-87/Sr-86; North-Africa; Africa-; Sudan-; East-Africa; genesis-; upper-Precambrian; Precambrian-; intrusions-; Eastern-Desert; stable-isotopes; alkaline-eairth-metals; metals-; basement-; whole-rock.; Pan-African-Orogeny; mixing-; evolution-; continental-margin; melange-; X-ray-data
- TI: **Geochemistry** of drift over the **Precamhrian** Grenville Province» southeastern Ontario and southwestern Quebec.  
AU: Kettles-I-M; Shilts-W-W  
SO: Paper-Geological-Survey-of-Canada. p. 97-112..  
YR: 1989  
DE: Ontario-; geochemistry-; drift-; Quebec-; glacial-geology; glaciation-; glacial-transport; Eastern-Canada; Canada-; clastic-sediments; Precambrian-; Grenville-Province; southeastern-Ontario; southwestern-Qu.ebec; till-; Frontenac-Arch; overburden-; acid-rain; mineral-exploration; •trace-elements; minor-elements; weathering-; lithofacies-; copper-; metals-; chromium-; Ottawa-Valley; Gatineau-Valley; clay-; bedrock-; marbles-; outcrops-; glaciomarine-environment; environment-; boulder-trains; glacial-features; distribution-; zinc-; arsenic-; calcium-carbonate; histograms-; statistical-analysis
- TI: Changes in marine **isotopic** composition and the Late **Ordovidan** glaciation,  
AU: Marshall-James-D; Middleton-Paul-D  
SO: Journal-of-the-Geological-Society-of-London. 147.. (1). p. 1-4. YR: 1990  
DE: Sweden-; stratigraphy-; Ordovician-; isotopes-; sedimentary-rocks; ratios-; carbonate-rocks; coquina-; carbon-; C-I3/C-12; oxygen-; O-18/O-16; geochemistry-; trace-elements; brachiopods-; biostratigraphy-; glaci.al-geology; ancient-ice-ages; paleoclimatology-; Scandina.via-; Western-Europe; Europe-; stable-isotopes; limestone-; Upper-Ordovician; Siljan-; central-Sweden; paleo-oceanography; Kullaberg-Limestone; Boda-Limestone; Dalama-; Hindella-; cathodoluminescence-
- TI: Carbon iso topic ratios of Silurian marine carbonates in the Michigan. **Basin**; a record of organic: **productivity?**.  
AU: Cercone-K-R; Lohmann-K-C  
SO: Abstra.cts-S'oci.ety-of-EcoMomic-Paleontologl.sts-and-Mineralogists,-Annnal-Midyear-Meeting. 3. p. 20' YR: 1986  
DE: Michigan-; geochemistry-; carbon-; Michlgan-Basin; North-America; isotopes-; Silurian-; carbonate-rocks; marine-environment; environment-; ratios-; brachiopods-; cementation-; dia.gene.sis-; C-13/C-12; stable-isotopes; anaerobic-environment; bacteria-; fermentation-; organic-materials; Midwest-; United-States; omdation-; shelf-environment:
- TI: Gradients in. carbonate: **mineralogy**, **Biscayne** Bay» SE Florida; a reassessment of **XRD** analysis.  
AU: Burton-Elizabeth-A  
SO: Abstracts-Society-of-Economic-Paleontologists-and-Mineralogists,-Annual-Midyear-Meeting. 3. p. 16-17 YR: 1986  
DE: Honda-; sedimentary-petrology; sediments-; Dade-Country-Florida; Southeastern-U.S»; Eastem-U.S.; United-States; Biscayne-Bay; carbonate-sediments; fresh-water-eriiyi.ronm.enit; environment-magnesium-; alkaline-earth-metals; metals-; calcite-; carbonates-aragonite-; X-ray-data; ratios-; solution-; Atlantic-Coastal-Plain North-America
- TI: Sedimentary cycling and the **Phanerozoic** carbonate mass distribution.  
AU: Mackenzie-Fred-T  
SO: Abstracts - of- Papers - American -Chemical-Society^National-Meeting. 198. p. GEOC 15 YR: 1989  
DE: sedimentary-rocks; carbonate-rocks; geochemistry-; geochemical-cycle; carbon-; Triassic-; Phanerozoic-; uniformitarianism-; Devonian-; rates-; calcite>; carbonates-; dolomite-; ratios-; Cambrian-; Permian-; Quaternary-; Ordovician-; Carboniferous-; Silurian-; Jurassic-; Cretaceous-; Cenozoic-; oxygen-; concepts-
- TI: Global **Phanerozoic** **geochemical cycle** of carbon..  
AU: Ronov-Alex-B  
OS: Vernadsky lust., Moscow, USSR  
SO: Abstracts-of-Papeas-American-Chemical-Society,-Natio.nal-Meering. 198. p. GEOC 13 YR: 1989  
DE: geochemistry-; geochemical-cycle; carbon-; organic-carbon; organic-materials; carbonate-ion; oxygen-; sedimentary-rocks; carbon-dioxide; Phanerozoic-; paleoatmosphere-; evolution-; atmosphere-; volcanism-
- TI: Cartoon isotope fractionation between dissolved **carbonate** (**CO3(2-)**) and **CO2(g)** at 25 degrees and **40 degrees-C**  
AU: Lesniak-P-M; Sakai-H  
SO: Earth-and-Planetary-Science-Letters. 95. (3-4). p. 297-301. YR: 1989  
DE: carbon-; isotopes-; C-13/C-12; stable-isotopes; fractionation-; carbon-dioxide; carbonate-ion; dissolved-materi.als; experimental-studies; open-systems; pH-
- TI: Geochemistry of some **Ordovidan** and **Devooiao** tri! obi te cuticles from North America.  
AU: McAllister-John-E; Brand-Uwe  
SO: Chemical-Geology. 78, (1>. p. 51-63.. YR: 1989  
DE: Ontario-; paleontology-; Trilobita-; New-York; trilobites-; biochemistry-; Ordovician-; isotopes-; cuticles-; diagenesis-L geochemistry-; trace-elements; carbon-, C-13/C-12; oxygen-; O-18/O-16; sedimentary-rocks; Erie-County-New-York; Livingston-County-New-York; Ludlowville-Formation; Moscow-Formation;; Eastern-Canada; Canada-; Great-Lakes-region; North-America; Eastem-U.S.; United-States; west-central-New-York; Onondaga-limestone; Whitby-Formation; Cobourg-Formation; Verulam-Formation; southern-Ontario; Devonian-; minor-elements; Phacops-rana; Isoletus-gigas; calcite-; carbonates-; stable-isotopes; limestone-; carbonate-rocks; shale-; clastic-rocks
- TI: Late Proterozoic glacial carbonates in Northeast Spitsbergen; new insights into the carbonate-tillite association.  
AU: FaircMSd-I-J; Hambray-MichaelS-J; Spiro-B; Jefferson-T-H  
SO: Geological-Magazine. 126. (5). p. 469-490. YR: 1989  
DE: Spitsbergen-; stratigraphy-; Proterozoic-; sedimentary-rocks; lithofacies-; isotopes-; carbonate-rocks; oxygen-; O-18/O-16; carbon-; C-13/C-12; sedimentation-; environment-; interprétation-; Svalbard-; Arctic-region; upper-Precambrian; Precambrian-; upper-Proterozoic; Pettovbreen-IVIember; Eldobreen-Fbmiation; stable-isotopes; glacial-environment; cathodoluminescence-; Wilsonbreen-Formation; glaciolacustrine-environment; paleoenvironment-; environmental-analysis; tillite-; clastic-rocks; petrography-
- TI: Application of geochemistry to **the stratigraphie** correlation of Appin and Argyll Group carbonate rocks from the **Dalradian** of northeast Scotland.  
AU: Thomas-C-W  
SO: Journal-of-the-GeoLogical-Society-of-London., 146.. (4). p. 631 - 647. YR: 1989  
DE: Scotland-; geochemistry-; trace-elements; stratigraphy-; Cambrian-; Precambrian-; metamorphic-rocks; metasedimentary-rocks; Great-Britain; United-Kingdom; Western-Europe; Europe-; Dalradian-; Appin-Group; Argyll-Group; carbonate-rocks; northeastern-Scotland

TI: Trace element and isotope: geochemistry of zoned calcite cements, Lake Valley Formation (Mississippian, New Mexico); insights from water-rock interaction modelling.

AU: Meyers-Wilhelm-J

SO: Sedimentary-Geology., 65. (3-4). p. 355-370. YR: 1989

DE: New-Mexico; geochemistry-; trace-elements; diagenesis-; cementation-; calcite-; oxygen-; Isotopes-; O-18/O-16; carbon-; C-13/C-12; minerals-; ratios-; Lake-Valley-Formation; Southwestern-U.S.; United-States; carbonates-; cement-; stable-isotopes; crystal-zoning; Mississippian-; Carboniferous-; rock-water-Interface; models-; cathodoluminescence-

TI: Détermination of both chemical and stable isotope composition in milligramme-size carbonate samples.

AU: Coleman-Max-L; Walsh-J-Nick; Benraor-Richard-A

SO: Sedimentary-Geology. 65.. (3-4). p. 233-238. YR: 1989

DE: minerals-; carbonates-; chemical-composition; oxygen-; isotopes-; O-18/Q-16; carbon-; C-13/C-12; ratios-; stable-Isotopes; experimental-studies; inductively-coupled-plasma-methods

TI: High-resolution scanning proton microprobe studies of micron-scale trace element zoning in a secondary dolomite; implications for studies of redox behaviour in dolomites.

AU: Fraser-Donald-G; Feltham-David; Whiteman-Mark

SO: Sedimentary-Geology. 65. (3-4). p. 223-232. YR: 1989

DE: Italy-; geochemistry-; trace-elements; crystal-growth; carbonates-; dolomite-; minerals-; diagenesis-; cementation-; Southern-Europe; Europe-; Eh-; crystal-zoning; cement-; electron-probe-data; cathodoluminescence-; X-ray-data; Gargano-Feninsula

TI: The laser microprobe and its; application to the study of C and O isotopes in calcite and aragonite.

AU: Smalley-P-C; Snijhoorn-D-E; Raheim-A; Johansen-H; Dickson-J-A-D

SO: Sedimentary-Geology. 65. (3-4). p. 211-221, YR: 1989

DE: oxygen-; isotopes-; O-18/O-16; carbon-; C-13/C-12; diagenesis-; cementation-; calcite-; minerals-; ratios-; carbonates-; crystal-growth; analysis-; laser-methods; stable-isotopes; aragonite-; cement-; crystal-zoning

TI: Neomorphism and cementation in ancient deep-water limestones;, Cow Head, Group\* (Cambro-Ordovician), western Newfoundland., Canada.

AU: Coniglio-M

SO: Sedimentary-Geology, 65. (1-2). p. 15-33. YR: 1989

DE: Newfoundland-; geochemistry-; trace-elements; diagenesis-; cementation-; limestone-; sedimentary-rocks-; carbonate-rocks; carbon-; isotopes-; C-B/C-12; oxygen-; O-18/O-16; Eastern-Canada; Canada-; sedimentary-petrology; deep-sea-environment; environment-; Cow-Head-Group; Cambrian-; Ordovician-; western-Newfoundland; stable-isotopes; cathodoluminescence-; crystallization-; calcite-; carbonates-; crystal-zoning; Humber-Annn-Allochthon; petrography-; SEM-data

TI: Active dissolution in modern shallow marine carbonate sediments; global implications?.

AU: Walter-Lynn-M; Burton-Elizabeth-A

SO: Abstracts-with-Programs-Geological-Society-of-America... 19. (7). p. 880 YR: 1987

DE: Florida-; oceanography-; sediments-; solution-; shallow-water-environment; environment-; marine-environment; carbonate-sediments; global-; pore-water; geochemistry-; Florida-Keys; Southeastern-U.S.; Eastem-U.S.; United-States; aragonite-; carbonates-; calcite-; cores-; carbonate-platforms; organic-materials; geochemical-cycle

TI: Th/U dating; of open carbonate systems.

AU: Hillaire-Marcel-C; Causse-C; Carro-O; Casanova-J; Ghaleb-B;

Goetz-C

SO: Chemical-Geology. 70. (1-2)., p. 127 YR: 1988

DE: absolute-age; dates-; carbonate-rocks; sedimentary-rocks; age-; caliche-; travertine-; stromatolites-; biogenic-structures; algae-; Th/U-; calcite-; carbonates-

TI: Tie use of the Th-230 and Ba as indicators of palaeoproductivity over a 380 kyr time scale; evidence from, the NW Arabian Sea.

AU: Shimmield-Graham-B; Price-N-B; Khan-A-A

SO: Chemical-Geology. 70.. (1-2). p. 112 YR: 1988

DE: Arabian-Sea; stratigraphy-; Quaternary-; thorium-; isotopes-; Th-230; barium-; geochemistry-; sediments-; northwestern-Arabian-Sea; actinides-; metals-; radioactive-isotopes; alkaline-earth-metals; Owen-Ridge; calcium-carbonate; paleoproductivity-; Indian-Ocean; paleo-oceanography

TI: Chemical and mineralogical effects of acid deposition on Shelburne Marble and Salem Limestone test samples placed at four NAPAP weather-monitoring sites.

AU: Ross-Malcolm- McGee-Elaine-S; Ross-Daphne-R

SO: American-Mineralogist. 74. (3-4). p. 367-383. YR: 1989

AB: Marble and limestone briquettes were placed at National Acid Precipitation Assessment Program (NAPAP) test sites in North Carolina, Washington, D.C., New Jersey, and New York to determine mineralogical changes, that might be attributed to acid deposition. Samples have been examined after exposures of 1 and 2 yr, and the most significant change is the development of a gypsum-rich "spot" on the sheltered side of the briquettes. X-ray and SEM analyses reveal that gypsum plus calcite is present within the "spot" area, but outside this area and on the upper surface of the briquettes, only calcite is detected. A model, based on the sequence of salts observed to crystallize from a progressively more concentrated solution, is presented to explain the presence of the "spot" on the undersides of the briquettes. In the models, the CaCO<sub>3</sub>-saturated solutions filling the pore space in the stone continuously precipitate calcite during the drying period after the rain event; gypsum is precipitated only after evaporation is nearly complete. As evaporation proceeds, the solution, migrates by gravity to the lower surface of the briquette and the last residual liquid precipitates gypsum and produces, the gypsum-rich "spot". It is proposed that the most significant stone damage is due to salt build up on and within the stone rather than due to stone removal through dissolution.—Modified journal abstract.

DE: construction-materials; geochemistry-; weathering-; chemical-weathering-; building-stone; rock-mechanics; materials-; properties-; pollution-; effects-; atmosphere-; acid-rain-; hydrology-; atmospheric-precipitation-; Salem-Limestone; Shelburne-Marble; NAPAP-; Natl.-Acid-Precipitation-On-Assess.-Program; marbles-; limestone-; carbonate-rocks; limestone-deposits; marble-deposits; field-studies; sulfuric-acid; nitric-acid; SEM-data; salt-; evaporites-; chemically-precipitated-rocks; gypsum-; sulfates-; calcite-; carbonates-

TI: Stable isotopic (S,C,O) study of the Abbeytown Zn+Pb+Ag mine, Co. Sligo, Ireland.

AU: Hitzman-Mu.na.y-V; Recio-C; Caulfield-J-B-D; Boyce-A-J; FalMcK-Anthony-E

SO: Abstracts-with-Programs-Geological-Society-of-America. 20. (7). p. 38 YR: 1988

DE: Ireland-; economic-geology; silver-ores; lead-zinc-deposits; Western-Europe; Europe-; metal-ores; pyrite-; sulfides-; precious-metals; geochemistry-; isotopes-; stable-isotopes; oxygen-; carbon-; sulfur-; Abbeytown-JVSine; Mississippian-; Carboniferous-; carbonate-rocks; dolomitization-; dedolomitization-; fluid-inclusions; inclusions-; sphalerite-; galena-; breccia-; clastic-rocks; S-34/S-32; C-13/C-12; O-18/O-16; Sligo-

TI: Discovery of a second Ordovician meteorite using chromite as a tracer...

AU: Nyström-Jan-Olav; Lindstrom-Maurits; Wickman-Frans-E

SO: Nature-(London), 336. (6199). p. 572-574. YR: 1988

DE: meteorites-; detection-; stony-meteorites; Sweden-; geochemistry-; diagenesis-; materials-; conodonts-; biostratigraphy-; Ordovician-; fossil-meteorites; chromite-; oxides-; geochemical-indicators; limestone-; carbonate-rocks; Scandinavia-; Western-Europe; Europe-; southern-Sweden-; Osterplana-; KinneJculle-; electron-probe-data; SEM-data; microfossUs-; metasomatism-

TI: Mixing-zone dolomites in the Golly Oolite, Lower Carboniferous, South Wales. >

AU: Searl-A

SO: Journal-of-the-Geological-Society-of-London. 145 (Part 6). p. 891-899.. YR: 1988

DE: Wales-; stratigraphy-; Carboniferous-; sedimentary-petrology; sedimentary-rocks; geochemistry-; isotopes-; carbonate-rocks-; limestone-; oxygen-; 0-18/0-16; carbon-; C-13/C-12; Great-Britain; United-Kingdom; Western-Europe; Europe-; Dinantian-; South-Wales; dolomitic-limestone; petrography-; Gully-Oolite; stable-isotopes

TI: Stable isotopes In. the back, reef facies of the Bonneterre and Davis formations (Cambrian),, MO; evidence: for a complex diagenetic history.

AU: Gregg-Jay-M; Shelton-Kevin-L

SO: Abstracts-with-Programs-Geological-Society-of-America. 20.. (7). p. 120 YR: 1988

DE: Missouri-; sedimentary-petrology; diagenesis- "Bonneterre-Formation; Davis-Formation; Midwest-; United-States; geochemistry-; isotopes-; Cambrian-; carbon-; oxygen-; limestone-; carbonate-rocks; dolostone-; dolomitization-; mississippi-valley-type; mineralization-; mudstone-; clastic-rocks; 0-18/O-16; stable-isotopes; C-13/C-12

TI: Kristalle als Geothermometer und-barometer.

AU: Paulisch-Feter

SO: Zentralblatt für Geologie und Paläontologie. Teil I. H.3.p. 181-344. YR: 1990

IA: German

De: *Jadeite*: Paragenesis, crystal structure and, color, orientation in rocks and experimental deformation, experiments on jadeite forming, jade as rough material for the art handwork, summary; *Amphibole*: Preferred orientation, of hornblendes, experimental hornblende - deformation, anisotropy of amphibolites, crystal structure of the hornblende and facies, aluminium, sodium, calcium, magnesium, iron, and titanium in hornblendes,, isotopes in hornblendes:, epitaxis, biopyriboles, hornblende reactions in nature, experimental forming of amphiboles;, technical syntheses, summary; *Chloritoid*: Natural paragenesis, with chloritoid, crystal structure: and polypyrs, orientation von chloritoid in rocks» experimental chloritoid-reactions, literature out of lands, summary; *Staurolite* Paragensis, crystal structure and epitaxis, orientation, experimental deformation, laboratory experiments: on the forming conditions, summary; *Titanite*: Paragensis, age, form, crystal structure, experimental deformation and orientation,, titanite-syntheses, titanites in tectonic, summary; *Corundum*: Paragensis, form, and epitaxis, structure, color, orientation,, corundum-syntheses with, different mineral pairs, technic,, rubles, world wide,, summary; *Talc*: Paragensis:, ore deposits, structure, laic-synthesis:, technic,, summary; *Pkologopitei* Natural paragenesis, crystal chemistry and polypyrs, isotopes and trace elements, fluid inclusions» epitaxis, orientation and experiments of deformation, conditions of experimental forming, weathering, technic, summary.  
(Özcan DORA)

## Özler / Abstracts

**Candan Gökçeoglu, Hüsnü Aksoy, 1996, Landslide Susceptibility mapping of the slopes in the residual soils of the Mengen region (Turkey) iff deterministic stability analyses mud image processing tecniqites: .Engineering Geol.,44\* 147-161,**

**Abstracts:** The aim of present study is to prepare a landslide susceptibility map of a region of about 120 km<sup>2</sup>,, between Gokcesu and Pazarköy (around Mengen, NW Turkey) at approximately 10 km .norm of the North Anatolian Fault Zone, where frequent landslides occur,. For this purpose, mechanisms of the. lao.dsli.des were studied by two-dimensional stability analyses together with field, observations,, and, the parameters controlling; the: development of such slides, were identified. Field observations .indicated that die failures, generally developed within, the uncoD.soli.da.ted and/or semiconsolidated soil units in forms of .rotational, successive shallow landslides within the weathered zone in. Mengen, Çukurca and, Sazlar formations\* Although consisting of residual soils., Capak and Gokdag formations do not exhibit landslides as the natural slopes formed on these, do not exceed, the: critical slope angles.. Statistical evaluations and distribution of the landslides on. the topographical map showed that such parameters as cohesion, angle of internal friction» slope:, relative height» orientation of slopes;, proximity to drainage pattern, vegetation cover and proximity to major faults were the common features on the landslides. Digital images, were obtained to represent, all these parameters on gray scale on 'the SPOT image and. on the: digital elevation model (DEM) of the ,area using image processing techniques. Soil mechanics tests, were carried out on 36 representative samples collected from different units, and, parameters, were determined for' two-dimensional stability analyses basing on "sensitivity approach" and for' 'the preparation, of digital shear' strength map. In order' to determine the critical slope angles values for 'the residual soils,, a series of sensitivity .analyses we « realized, by using two-dimensional deterministic slope stability analyses techniques for varying values of cohesion., angle of internal friction and slope height along with varying saturation conditions. According to the-results of the sensi.ti.vity analyses., the Mengen formation was found, to be most susceptible unit to landslides., covering about 33.5 % of 'the region studied, in terms of surface area.. The distribution of the critical slopes were determined, by superimposing the -critical slope values from sensitivity analyses on slope map of the study area., On the other hand, Iso-cohesion and iso-friction maps were produced by locating 'the values of Cohesion, and internal friction angles, in a geographic coordinate system such 'that they coincide with sample locations on the DEM and by further' .interpolation, of •the values concerned... The' pixel values were evaluated .in gray scale: from. 0 to 2,55.0 representing, the lowest pixel value and ,255 representing the highest. Sensitivity analyses on. 'Cohesion, and angle of internal friction, .investigate the effects of the parameters only on stability, revealed, that cohesion, was effective at a rate of 70% by itself » while: angle of Internal friction alone controlled 'the stability by a rate of 30%. The Iso-cohesion. and iso-friction maps previously obtained were- digitally combined in these rates and a "shear strength map" was prepared. The geographic, setting of the: study area is such that northern slopes usually receive dense precipitation, In relation to this fact, about 42% of the landslides, are due north.. Thus,, a slope orientation map was prepared using 'the DEM, and slo-

pes facing north were evaluated as being more susceptible, to sliding.. Proximity to the drainage pattern was another important factor<sup>1</sup> in the evaluation, as streams could, adversely affect the stability by either eroding the toe or saturating the slope, or both. When considered together,, in conjunction, with the field observations, faults and landslides showed a close association. In the area,, about 88% of fine landslides were, detected within an area closer than 250 m to major faults,, therefore, a main discontinuity map was produced, using the SPOT image of the region, and "proximity to major faults" was, evaluated as a parameter as most, of the landslides developed in areas where the vegetation was rather sparse. A vegetation cover map was therefore obtained from, the SPOT image,, and the areas with denser vegetation were considered to be, less susceptible to siding with, respect, to the areas with less or no vegetation.. Having prepared, the maps accounting, for the distribution of critical slopes,, shear strength properties, relative height, slope angle, orientation of the slopes, vegetation cover,, proximity to the drainage pattern, geographic, conetions were carried on each of these,, and a potential failure map was obtained for the residual soils by superimposing all these maps. Next,, a classification was performed on the final map and five relative zones of susceptibility were defined... When compared with this, map, all of the landslides identified in the field were- found to be located, in the most susceptible zone... The performance of the method used in processing the images appears to be, quite high, the zones determined on. the map being the zones of relative- susceptibility.

Ernst JA. Leven, Aral .1; Okay , 1996 *Fomminifera from the exotic Permo-Carboniferous limestone blocks in the Karakaya Complex, Northwestern Turkey: Mivisia Italiana* di Falewitologia e Stratigrafia, 102» 2,139-174.

**Abstract:** Karakaya Complex in. northern Turkey is a tectonic assemblage of strongly deformed Fenno-Triassic mafic volcanic and clastic rocks» representing subduction-accretion complexes of the Paleo-Tethys. It forms, an over 1000 km long discontinuous east-west trending belt, and constitutes the basement to the little deformed Jurassic-Cretaceous sequence of the Pontides. In northwest Turkey four tectonic units are differentiated, within the Karakaya Complex. A basal metabasite-marble-phyllite sequence,,, an arkosic sandstone-oHsto-strome unit, a greywacke 'unit and a mafic lava-tuff-olistostrome unit. The latter three units, comprise numerous, exotic- blocks of Permo-Carboniferous limestone ranging up to one kilometre- in size. Foraminifera from over 180 blocks from these three Karakaya Complex units are studied., many in oriented sections.. The rich- fusulinid and small foraminifer assemblage in the blocks of the Karakaya Complex with three new fusulinid species, *Triticites (?) kozakensis*, *PalaeofitsuHna (Paradunbarula) okayi* and *PalaeofitsuHta (Paradtnbartha) ottomana*, indicate the presence of all the Carboniferous and Permian stages with the exception of Touroaisian» Kasimovian and Bolorian. However» the majority of the limestone blocks (>80%) are of Murgabian to Midian age. Compared to the Upper Paleozoic sequences from the Anatolide-Taurides, the limestone blocks, in the Karakaya Complex are characterised by richer fusulinid assemblages,, and a more complete synthetic sequence suggesting that they were deposited, to the north of the Anatolide-Tauride platform along the southern or northern margin, of the Paleo-Tethys., The concentration of the olistostromes along the suture with the Anatolide-Taurides suggests, that the limestone

blocks were derived from the southern .margin of the Paleo-Tethys., However, fusulinid assemblages of the Karakaya Complex show similarities to those- from orals,northern Pamir and Darvaz, all thought to be located along, the northern margin of the Paleo-Tethys, suggesting an opposing view. This could, be due to the narrow width of the Permian. Paleo-Tethys in the Turkish paleo-longitöde, which might have obliterated faimal differences in fusulinid assemblages from both, sides of the ocean.

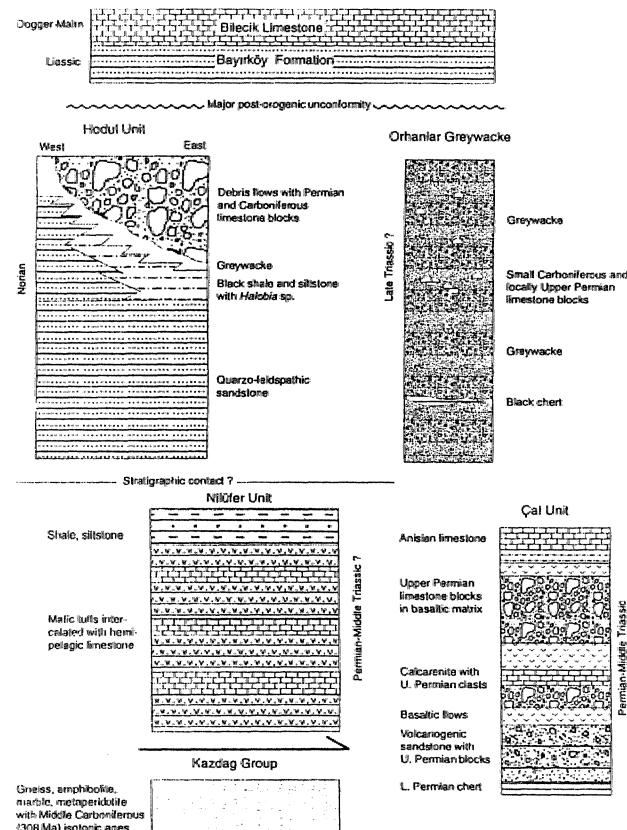


Figure 2. Generalized synthetic stratigraphic columns of the Karakaya Complex (The Niliyer, Hodul and Çal units and the Orhanlar Greywacke) and their tectono-stratigraphic position.

Nflda Yu. Bragln, II. Kağan. Tekin, 1996, A^e ofroàioUaù an-ckert Mmks from the Senonian Ophiolitic Mélange (Ankam, Turkey): Tie Island Arc, 5,114-122.

**Ahimct:** The Senonian Ophiolitic Mélange of the Mélange Supergroup includes numerous blocks, of radiolarian cherts. These blocks containi various radiolarian assemblages from, the Albian to' the: TuronlOT (*Pseudodictyomittra pseudomacroccephala*, *Thanarla veneta*), the Lower Cretaceous (*Thatiarla conica*, *AMevium helena*e, *Pseudodictyomittra carpatica*), the Kimmeridgian-Tithonian (*Ristota altissima*, *Sethocapsa cetia*, *Podocapsa amphitreptera*) and the Lower Jurassic (*Parahsuum simplicum*). Upper Norian radiolarians were obtained from, two of these blocks,. The assemblage is represented by *Betraccium deweveri* Pessag.no and Blome, *Ferresiu triquetrum* Carter, *Pylostephanidium ankaraense* n. sp.. (Genus *Pylostephanidium* was formerly •unknown in. the Upper Triassic) and other taxa, Thus,, Upper Norian fauna of

Turkey exhibits close similarity to the radiolarian assemblages of western North America,, Eastern, Russia, Japan, and the Philippines.. This provides further evidence for the correlation of Mediterranean, and Pacific Triassic sequences., These data allow for the conclusion that the sedimentation of radiolarian cherts, was common in, this part of Tethys during the Late

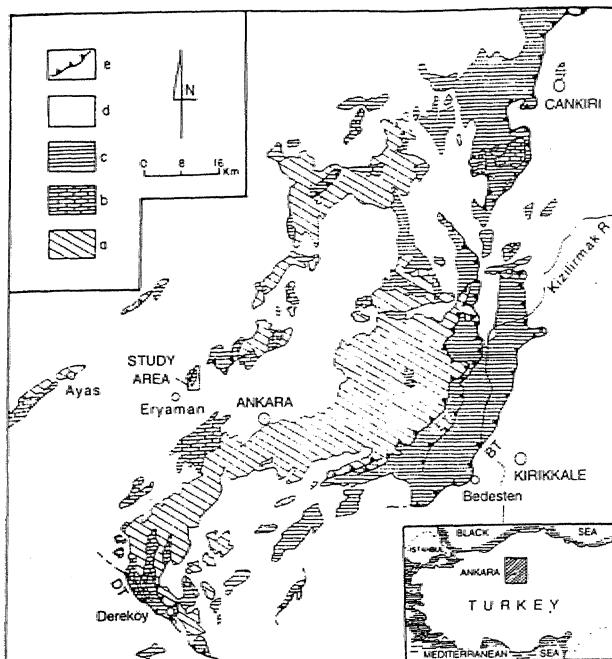


Figure 1. Geological map showing major rock units of the Ankara mélange, (a) Pre-Liassic 'Karakaya Grotq\*'. (b) Jurassic-Cretaceous sedimentary sequence, (c) Senonian Ophiotic Mélange, (d) Tertiary-Recent cover rocks., (e) thrust to reverse fault.. BT: Bedesten Thrust Fault Zone, DT: Dereköy Thrust Fault Zone,,, ET: Elmadağ Thrust Fault Zone (Modified after Koçyiğit 1992),.

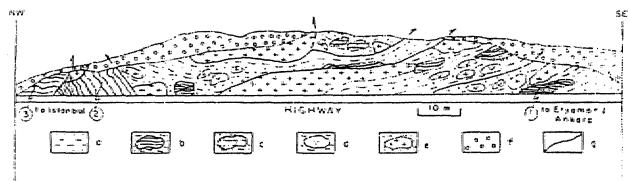


Figure 2. Generalized cross-section of a road-cut between Eryaman and Istanbul, (a) Volcanic matrix, (b) Blocks of mudstone and chert with 1, Upper Triassic; 2» Lower Jurassic; 3, Kimmeridgian-Tithonian Radiolaria. (c) Blocks of limestones, (d) Blocks of volcanics. (e) Blocks of serpentized gabbro. (f) Tertiary-Recent cover rocks, (g) Tectonic contact.

Triassic and the Jurassic.

Erdin Bozkurt, Ali Eoçylpt, 1:996, *The Kazova basin: an active negative flower structure on the Atmus Fault Zone» in splay faali system of the North Anatolian Fault Zone, Turkey: Tectonophysics*, 265,, 239-254.,

**Abstract:** The Kazova basin is located within, 'the Almus Fault Zone (AFZ), a splay fault system of the North Anatolian Fault Zone,' in the central Pontides, Turkey,. It is a, 0J-104rai-w.l.de, 60-km-long, wedge-shaped right-lateral strike-slip depression, bounded by the Mercimekdağı-Çarndere fault set in the north and the Tokat fault set in the south. The Kazova basin is superimposed on pre-Pliocene basement rocks while its. basin fill comprises the .Pliocene to' lower' Quaternary Ktzkayasi and Çerçi formations, and Quaternary al.uvi.als...  
The Mercimekdağı-Çamdere and Tokat fault sets of (he AFZ, 'the basin-margin faults of the Kazova basin have a considerable amount of normal separation, and show a divergent character. Here, 'the Kazova basin is interpreted as an active negative flower structure.' where 'the combination of normal movement (extension.) along the. different, segments of (he AFZ,, and the oblique extension between its. branching, splays resulted, from, a natural response to the anticlockwise rotation along the. AFZ. are suggested bashi-forming mechanism. This, kind of basin, is fust reported from, Turkey although different types of strike-sip basins-, such, as. fault-wedge,, poll-aparts, 'Composite

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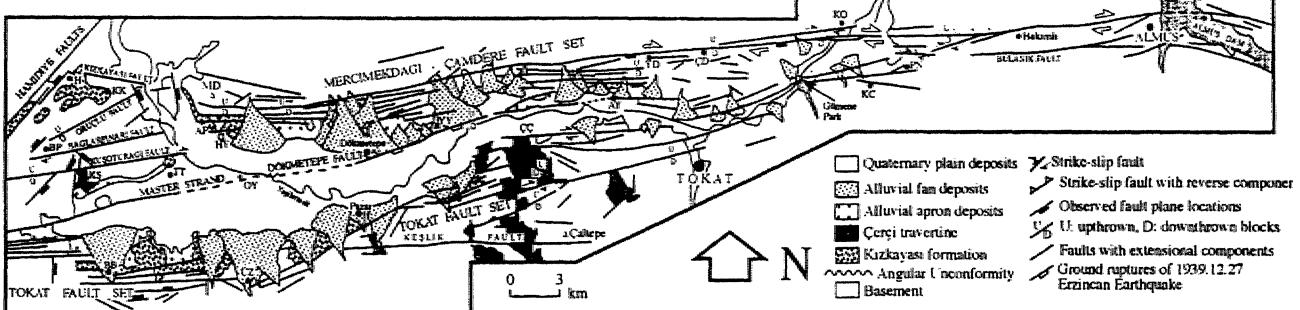
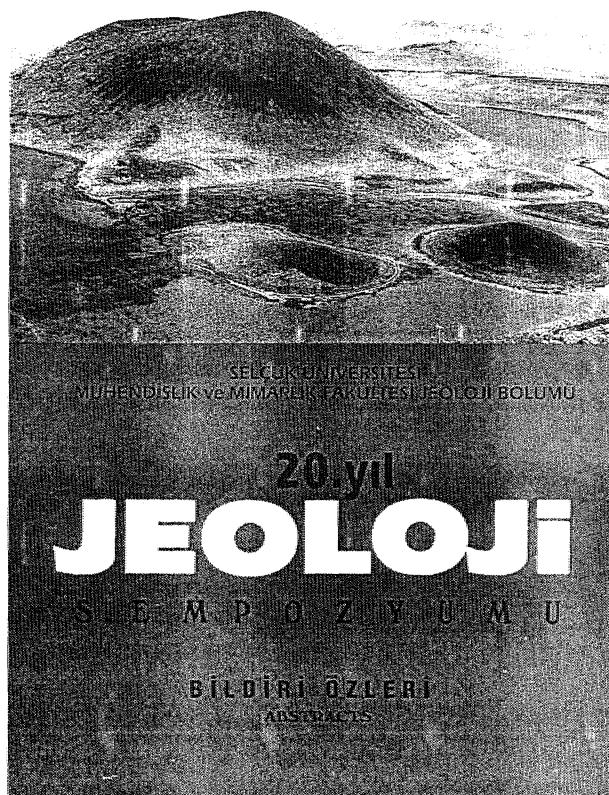


Fig Mae3. Neotectonic map of the Almus Fault zone.. ÄK= Ahurkèy; ,AP= Amgnnan; AY= Akyamaç; B,B= Bahçebaşı; BP= Bağlarptn; ÇÇ= Çerçi; ÇD= Çamdere; GP= Giiptmn; H= Hamidiye; HY=Hamayeri; İH= İephamamı; KC= Korucak; KK= Kızkayasi; KO= Kmlkö'y; KS= Kuşotumğı; MD= Mercimekdağı; OY= Ovayurt; PN= Pmarlı; SN= Sorgun; TT= Tatlicak; OZ= Üzümeren; YD= Yayhdak; YY= Yeşilyurt,

## Sempozyum / Seminer / Konferans

### SELÇUK ÜNİVERSİTESİ, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, JEOLOJİ MÜHENDİSLİĞİ BÖLÜMÜNÜN 20. YILI JEOLOJİ SEMPOZYUMU

Selçuk Üniversitesi,,, Mihen.dislik-MmarJik Fakültesi, Jeoloji Mühendisliği Bölümönün 20.. Yılı Jeoloji Sempozyumu, 12-16 Mayıs 1997 tarihleri arasında Konya Üniversitesi kampüsünde gerçekleştirildi. Sempozyumda Çevre Jeolojisi, Endüstriyel Hammaddeler, Hidrojeoloji,, Metalik Maden Yatakları,, Mineraloji-Petrografi, Paleontoloji,, Sfratigrafi-Sedimentoloji,, Yapısal Jeoloji, Zemin Mekanığı, olmak üzere 9 konu, başlığı altında. 109 bildiri, sunulmuştur. Sunulan bildirilere ait makaleler düzenleme komitesi tarafından yayınlanacak sempozyum bildiriler kitabında yer almaktadır. Sempozyum bildiriler özleri, kitabında yer alan bildirilerin başlıklarları ve yazarları aşağıda verilmiştir.



#### 1- ÇEVRE JEOLOJİSİ

Asitli topraklarda ağır **metollerin jeolojik, pedojen** ve **antropolojik**; kısımları ayrılmıştır:

Kömür- yakıtlı termik santrallardaki **uçucu küllerin** çevreye etkisi: Genel değerlendirme: **Burcu ÇANGI**, Nilgül GÜLEÇ w **Ayhan ERLER**.

Maden, sahalarında arazi, düzenlemesinin önemi, ve ülkemdeki uygulamalar: **Niরten ŞENSÖĞÜT** ve **Cem ŞENSÖĞÜT**.

ŞabanözÜ (Çankırı) yöresindeki ofiyolitik birimlerin, mineralo-jik-petrografik incelemesi ve alterasyon ürünü minerallerin insan sağlığı üzerindeki riskleri: **Mine ŞENOĞLU**.

Samsun ili civarındaki topografik yapının bölgelenin hava kirliğine etkisi (POSTER): **Şikrii DURSUN**.

Konya Ovası yeraltı sularındaki bor kirlenmesi: **Güler GÖÇMEZ** ve **Ahmet GÜZEL**

#### 2- ENDÜSTRİYEL HAMMADDELER

Cemilboga (KD Gümüşhane) vezüvan ve ffogojpiderinin mineralojik ve kimyasal özelliklerini: **Ferkan SİPAHİ** ve **M. Burhan SADIKLAR**.

Karamustafa ve Haskifiy (GömEşhane / KD Türkiye) yöresindeki hidrotermal barit yataklarının incelenmesi: Farili. **AYDIN** ve **M. Burhan. SADIKLAR**.

Dolomiti agregada alkali-agrega etkileşiminin sips» orjinal beton ve beton lüp örneklerinde incelenmesi: Aynur • **ÖZEL**, Y. Yelda, **DİNEROL**, Meltem SAYARSLAN, Serdar **HELVACI** ve **Cengiz YETİŞ**,

öremli (Kepsut-Balıkesir) yöresinin jeolojisi ve talk, yatakları: Fetullah ARIK ve Sedat TEMUR.

Üst Triyas-Alt Jura (Korkuteli-Antalya) kireçtaşının mühendislik ve teknolojik özellikleri: Ayhan **KOÇBAY**, Mecep **KILIÇ** ve Yalçın **ORKUN**.

Kfflerin çimento sanayisinde- kullanımı ve ocak işletme seçimi ilişkin bir uygulama: **Halil KUMSAR**, **Ali GÖKGÖZ** ve Yahya **ÖZFINAR**.

Sivas-Ulaş Tersiyer havzası sölestinlerinin, mineralojisi,, jeokimyası ve kökeni: **Erdoğan TEKİN**, Bakı **VAROL** w **Ruhi ÖZGÖNÜL**

Ereğli (Konya)-Ulukişla (Niğde) sölestinlerinin jeolojik konusu: **AbdurafanHuu MURAT** ve **Sedat TEMUR**.

Esbey-Emet (Kütahya) borat yatağı kil mineralleri ve basit bir seramik uygulaması: **Mümtaz ÇOLAK**,

Gökçeyazı-Kuşaktepe (Ereğli-Konya) sölestin zuhurlarının incelenmesi: **Ünal DEMFRAY**, M. **MinaTer KAE.ADAĞ** ve M. Salta **ÖNCEJİC**,

.Karacaoğlan gaz sahasında kil, diyajenezi Ye vitrinit yansımıası ar.as.indaki istatistiksel ilişki: **Aria ARCASOY**.

Konya ili kömür olanakları, ve ülke ekonomisindeki yeri: Hilya **FNANEM** ve **Eran NAKOMAN**.

Ayvacuk (Çanakkale) bentonit yataklannm mineralojik; özelikleri: **Fazlı COBAN**.

### 3- HİDROJELOJİ

Elazığ yakm. çevresindeki bazı formasyonların hidrojeolojik karakteristikleri: Bafantlı ÇETİNDAĞ.

Bergama Kleopatra Kaplicası \*nın hidrojeolojik incelemesi:: Şevki FİLİZ ve Gültekin TARCAN.

Ddın (Çeşme) karstik kaynakların hidrojeolojik incelemesi: Yalçın ESEN, Şevki FİLİZ ve Gültakan TARCAN.

Turgutlu (Manisa) kaplıcaları ve. çevresinin hidrojeolojik incelemesi: Gültakan TARCAN ve Şevki FİLİZ.

İç Anadolu'daki önemi, bir içme suyu kaynağının su, kimyası ve izotopik özellikleri: Helvadere-Aksaray: Mustafa AFŞİN ve Nal UNSAL,

Hapis jeotermal (hidrotermal) akışkanlara bir örnek: tsmü (Konya) jeotermal sahası: Adem AKBAŞL

Seydişehir yöresinde rıllenkarren oluşumuna etki eden faktörler: Selim ERDOĞAN ve Mustafa EKMEKÇİ.

Doğu Karadeniz Bölgesi taşın ovalarının jeoloji ve topografya ile ilişkisi: Ömer Murat YAVAŞ

Değirmenlik, karst çöküntüsünde morfolojik-yapısal özelliklerin karst evrimi açısından yorumlanması: Aylin BAŞAL ve Mehmet EKMEKÇİ

Balyan-Ildur (Çeşme) yoresinin hidrojeolojisi: Taran GÜRSEL, Şevki FİLİZ ve Gültakan TARCAN.

Yukarı Zamanlı havzasında 'kar erimesi ve yeraltı suyu akımı: Ömer Murat YAVAŞ..

Beyşehir Gölü hakkında yeni bir gözlem: Yüksel AYDIN..

Penno-Triyas yaşı kireçtaşlarının (Çorum) hidrojeoloji özellikleri ve yeraltı, suyu kalitesi: Zafer ARIGÜN ve Ayhan KOÇBAY.

Gazlıgöl (Afyon) sıcak ve mineralli soğuk kaynaklarının hidrojeolojisi: Gürler GÖÇMEZ ve İbrahim KAKA.

Konya dolayında suların oluşturduğu doğal, anıtlar ve hanların korunması: Bafet CANİK.

Pınarbaşı (Kayseri) karstik kaynağının hidrojeoloji incelemesi: Ahmet GÜZEL» TaMR NALBANTÇDLAR ve Mehmet BAYRAM.

Marmara Bölgesi termomineral kaynakları; Rüstem PEHLİVAN ve Osman YILMAZ.

### 4- METALİK MADEN YATAKLARI

Karakas (BasMI-Elazığ) demir cevherleşmesinin özellikleri: Muharrem AKCÜL ve Birol ACAR»

Kanköy (Yomra-Trabzon / KD Türkiye) civarında toprak ve bitki jeokimyasının uygulaması: Abdurahman LERMİ ve Ali VAN.

ölüçak (Gümüşhane) altınlu kuvars damarlarının jeolojik,, mineralojik, ve jenetic açıdan incelenmesi: Hakan. ÇA VGA. ve Miraç AKÇAY. "

Armaüartepe (Niğde) antimoan .mineralizasyonunun incelenmesi: M. Gürhan YALÇIN,

'Hacı Mustafa (Baskıl-Elazığ) cevherleşmelerinin özellikleri ve kökeni: Cemal BÖLÜCEK ve Ahmet SAĞIROĞLU.

Elmaalan (Arsin-Trabzon) yöresinde masif sulfid mineralizasyonları üzerinde gelişen topraldann element dağılımının incelenmesi: Salta. SARAÇ ve Ali VAN .

özدү granatoidine bağlı cevherleşmeler: Hülya YAZICI ve M., Burhan SADIKLAR.

Seydişehir bölgesindeki karstik boksitlerle Sultan. Dağları'nda bulunan lateritik boksitlerin mineralojik, ve jeokimyasal karşılaştırılması:: M. Muzaffer KARADAĞ, Ahmen AYHAN ve M. Salim. ÖNCEL.

Gümüşköy (Kütahya) gümüş yatağının jeolojisi, ve kökeni: Adnan KARABAŞ.

Yeşilova. (Burdur) civarı kromit yataklarının jeokimyası ve bazı yataklarla karşılaşılması: Adnan DOYEN ve Ahmet AYHAN.

Arsin (Trabzon) yöresi topraklarında Pb, Zn, Co,, Mo dağılımı. ve. Fe-Maa. yumruları:: Ayla HANEDAN, M- Burhan SADIKLAR ve Ali VAN.

Karot bilgi bankası ve uygulamaları: Mehmet ŞENER.

Trabzon yöresi güncel topraklardaki tabaka ve yunani şekilli Fe-Mn zenginleşmelerinin kökeni: M. Burhan SADIKLAR..

Kanatburun (Petek-Tömceli) bölgesindeki skam kayaçlarının özellilikleri: Mehmet ALTÜNBEG ve BİSEYİE ÇELEBL

### 5- METİNALOJİ-PETROGRAFT

Piran Köyü (Keban) çevresindeki magmatik kayaçların petrografik ve. petrolojik. özellikleri:: Bülent AKGÜL ve A. Fezzi. BİNGÖL.

Elazığ civanndaki ofiyoliüberin petrografik özellikleri; Mdahat BEYARSLAN.

Pütürge (Malatya) Masifi "ndeki gnaysların petrografik ve petfokjik özellikler: Emin EEDEM ve Fevzi BİNGÖL.

Karanlık Dere (Gölbaşı-Adiyaman) magmatikrinin petroloji-  
si: A. Fevzi BİNGÖL, **Méhhat REYARSLAN**, **Binyamin AKGÜL** ve **Emin ERDEM**.

Bolu-Yedigöller granitik kayaçların petrojenezi: P. Ayda.  
**Müg&n USTAÖMER** ve Erdinç KIPMAN.

Yükselen (Kadınhanı) kuzeyindeki pelitik kayaçlar içinde- ye-  
ralao bazik şistlerin petrokimi: **Hfiseyln KUMT**.

Hklrotermal alterasyona uğramış Yunusemre (Eskişehir) ser-  
pantmitkrin jeolojisi ve petrografisi: **All MEÇLER**, Şükrü  
KOÇ<sup>1</sup> ve **Yusuf K. KADIOĞLU**.

.Pılur masifi doğu kesiminin bölgelik metamorfizması, Sakız-  
lı, Kurugıtney (**DemiözU-Baybut**) yoresi» KB Türkiye):  
Salta GENÇ.

Ullramafitlerin hidroteimal alterasyon derecesini belirleyen  
doku. çeşitleri: Eskişehir: **Yusuf. K. KADIOĞLU**, **Şükrü  
KOÇ** ve **Ali REÇBER**.

Zığana Granitoyidi'nni (Maçka-Trabzon) mineralojik ve jene-  
tik açıdan incelenmesi: **Orihan KARSLI** ve **M. Burhan  
SAPIKLAR**,

Mahmut-Demirtaş (Alanya-Antalya) yoresinde Alanya Birliği  
metañorfitlerinin petrografisi: Gürsel **KANSUN** ve Halil  
BAŞ»

Mineral kimyası ve petrografik özelliklerden yararlanarak gra-  
nitoidlerdeki anklav ve gabmlartın ilişkilerinin, belirlenmesi:  
Ağaçören (Aksaray): **Yusuf K. KADIOĞLU** ve Migün  
GÜLEÇ.

Galatya volkanik kompleksinin sayısal arazi, modeli (POS-  
TER): **Erhan KANSU**, Arda. **ARGASOY**, **M. Lütfi SÜZEN**  
ve **Vedat TOPRAK**.

Keski, kristal Henmede magma, bileşimindeki değişimin model-  
feimesi: Hulusi KARGI.

Granodiyoridk kayaçlarda. **lav** akış yönlerinin anizofrapik  
manyetik, süzeptibilite ile belirlenmesi: **All AYDIN**, **Kenan  
GELİŞLT** ve Zafer ARSLAN.

## 6- PALEONTOLOJİ

Batı Karadeniz Bölgesi Geç Kietase rudist faunası:  
**Mfikcrrem FENERCİ** ve **Saelt ÖZEM**.

Batı-Orta Toroslar Erken-Orta Miyosen bentik foraminiferleri-  
nin paleobiyoğrafyası ve evrimi: Sefer ÖKÇEN.

Yenice<sup>^</sup> (Tarsus) kuzeyi Neojen istifinin mikropal-eontolojik in-  
celenmesi ve ortamsal özellikleri: **GIUdemin ÖĞRÜNÇ**,  
Kemal **GÜRBÜZ** ve Atlike NAZİK.

Çaltı (Gümüşhane) yoresi Sinemuriyen-Kariksiyen (Ali Jura)  
ammon.it faunası: **Füsün ALKAYA**.

Jeolojik, tarihin soranları ve "sistem, dusunoesi" modellerinin  
gerekli: Ömer Faruk NOYAN ve E, **Şahin ÇAKIM**,

Marmara Denizi, ve çevresi Kuvatemer naollusk. faunası: Se-  
vinç K. YEŞİLYURT, Giler TANER ve Yeşim İSLA-  
MOĞLU.

Çanakkale-Gökçeadası-Bozcaada içgemi arasmadaki dip sedi-  
manlannda planktik foraminifer dağılımı: 'Vedia. **TOKER** ve  
•Ayşegfl YILDIZ.,

## 7-STRATtGRAEt-SEDİMANTOLOJI

Çaldır-an (Van) dvannm jeolojik incelenmesi: **Yaşar ÇAKIM**,  
ve Erkan **TANYOLU**.

Çaltepe dolomitinin (Seydişehir-Konya) sedim<sup>^</sup>antolojik ve  
petrografik özelliklen: **Asuman ÇETİN**» **M. Muzaffer  
KARADAĞ** ve Hükmü OREAN..

Kılkhan (Hatay) civarının tektono-stratigrafik incelemesi:  
**AUcan KOP**, ülvı Can **ÜNLÜGENÇ** ve Cav.it  
**DEMTRKOL**.

Hazar Köyü, (Elazığ) ganevbabsının jeolojik özellikleri;  
Mustafa SÖNMEZ.

Tortum Gölü (Erzanim) kuzeyinin sıratigralik ve sedimentolo-  
jik özellikleri: **Ralf KANOEMIR** ve Sadettin KORKMAZ,

OEgo-Miyosen Denizli molas havzasına ait alüvyal yelpaze-  
yelpaze delta ve siğ, deniz çökellerinin stratigrafisi vesedbennet-  
totojisi, Gtineybäü Türkiye: Hasan. **SÖZBİLİR**,

Neojen Peçenek havzasının jeolojik evrimi: **Vedat TOPRAK**  
ve **BoraROJAY..**

Konya bausmdaki gölzel Neojen. stromatolitleri: **Â. Müjdat  
ÖZKAN** ve Hükmü ORHAN.

Afyon Sandıklı bölgesinde tnfrakambriyen kayaları:  
Burhan ERDOĞAN, T. GÜNGÖR ve Necdet ÖZGÜL,

Denizli bölgesinde Menderes masifi iie Likya naplarmin stra-  
tigrafik ve yapısal ii:ışkisi; **Sadt ÖZER** ve **Hasan  
iSÖZBİLİR**.

*MÜm* alanmda Menderes. Masifi"ne ait Kietase-Alt Tersiyer-is-  
tifinin biyo-stratigrafisi; **Sadt ÖZER**, Izver **TANSEL**, **Vedia  
TOKEM**., Bilâl SAMI ve Mikerrem **FENERCİ**.

Amasya, yoresinde 'Orta Kietase sürecindeki platfonn-havza  
çökelleri ve birikim koşullan; Cemil. **YILMAZ**.

Doğu. Pontlderde (G-Trabzon) Üst Kretese yaşı volvano-MastMerin petrol kaynak kayası açısından incelenmesi: Reyhan KARA ve Sadet am KORKMAZ.

Toz Gölü havzasındaki (Sercflikofkar-Aksaray arası) Üst Kretase yaşı Asmabogazı fonBasyonME^diyajenetik özellüden: Hükmü ORHAN ve A. Müdat ÖZKAN.

Karakeçili (Kirikkale GGB'sı) Neojen havzasmdaki- playa kompleksinin sectimantolojik özellikleri, Tlrlkiye: tbrahim TÜRMEN Ye Mehmet ÖZKUL»

Soma kömür,, havzası Miyosen, istifi: Uğur' İNCİ.

Soma yöresinin Kuvatemer jeolojisi: İbrahim ARPALHİĞİT.

#### 8- YAPISAL JEOLOJİSİ

1 Ekim. 1995 Dinar depremi ve Tilkiye yeni deprem haritası: A. Baki GÜNAYDIN.

Modem kuyu. loglan ile çatlak rezervu.arlannm değerlendirilmesi: Ahmet TANDIRGIOĞLU.

Sivrice (Elazığ) çevresinde .Doğu .Anadolu Fay Zanu'nun tektonik Özellikleri: Mehmet TURAN ve .Ziifi GÜROCAK.

Tokat Masifi tektanostratigrafisinde yeni burgulan İhsan SEYMEN.

Van- ve Elazığ yörelerinde Kırkgeçit formasyonn.daki (Orta .Eosen-Alt Miyosen) olistolit yerleşmelerinin tektonik önemi.: Ercan AKSOY ve Mehmet TUMAN.

Kapıdağ Yanmadası kayma. zonu:.Rahmi AKSOY.

Kartalkaya-Köroğlu kompleksinin jeolojisini gravite ve havadan, manyetik anomalileri ile .incelenmesi: Seyfullah TUFAN, Erhan KAMSU ve Vedat TOPRAK.

Belirsiz, uzunluktaki eklemlerin .geometrik parametreleri ile kaya. kütlesinin dayanımı, arasındaki ilişki: Hasan ÜÇPIRTL

#### 9- ZEMİN MEKANIĞI

Ayn elemanlar yöntem (DEM) ile süreksiziMerin kaya kütlerinin dayanımına olan etkisinin iki boyutta incelenmesi: Hasan OÇPIRTL

Cumhuriyet Üniversitesi Tıp Fakültesi Hastanesi katı. atıkları için düşünülen düzenli deponi sahasının zemin özelliklerinin incelenmesi: Hâl. TUNÇSİPER, Orhan CERİT w Ergin KARACAN.

Süreksizlik aralıklarının belirlenmesinde karşılaşılan problemler: M. Kemal GÖKAY.

Çmara (Konya) civanmn zemin özellikleri: .Adnan ÖZDEMİR Ye Ibrahim AKBULUT.

Kayaçlann ısisal iletkenliklerini belirlemek amacıyla bir ısisal iletkenlik ölçek siste.miiii geliştirilmesi: Ayman. BAYRAK, Mustafa EĞRİBOYUN ve Sekhattîn PELİN.

Tikintmin temeline kil yapılmış toprak kabarması ve reoloji def&rinasyonumın önceden tayin edilmesi: Ç. Hamid in DANYALOĞLU..

Lös zeminlerin kayma mukavemeti parametrelerinin zamana göre- değişiminin araştırılması: Geybullu R. 6EYBULLAOÖLU w Sabır K. ALİOĞLU.

Zeminlerde sâa.Şma eğrisinin, başlangıç boşluğa, bağlı, olarak değişiminin araştırılması: Yakup A. EYUBOĞLU, Ana N. ALIZADE, .Meto C. CAFEROĞLU ve Acam. Ö. NAGDtOĞLU.

Killerde oluşan tek boyutlu şisme defbrmasyomun zamana göre değişiminin .araşuihnası: Sabır K. ALİOĞLU ve Ali AbdnDah SÜLEYMAN.

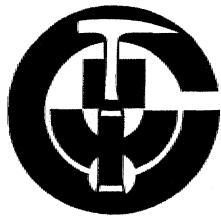
Apşeron Yarımadası kireç taşlamm mühendislik jeolojisi özelilikleri: t. AjErağ. MUHTAROĞLU.

Lös batan zeminler üzerinde yolların projelendirilmesi için yapan, mühendislik jeolojisi etüdlerinin farklı ö^zellikleri: Vig;ar S. ALİOĞLU..

Mühendislik jeolojisi, araştırma işlerinde lö- zeminlerin, esas deformasyonu göstericilerin, belirlenmesi.: Tevfik tSMAİLOĞLU.

## ÇUKUROVA ÜNİVERSİTESİNDE JEOLOJİ MÜHENDİSLİĞİ EĞİTİMİNİN 20. YILI SEMPOZYUMU

Çukurova Üniversitesi» Mühendislik, ve Mimarlık Fakültesi, Jeoloji Mühendisliği Bölümü tarafından, düzenlenen "Çukurova Üniversitesinde Jeoloji Mühendisliği Eğitiminin 20.. Yılı .Sempozyumı\* 30 Nisan-3 Mayıs. 1997 tarihleri, arasında Adana-Balçak Üniversite kampüsünde gerçekleştirildi. Sempozyumda Genel Jeoloji, Mineraloji-Petrografi, Maden Yatakları Jeokimya ve Uygulamalı Jeoloji anabilim dallarında 126'sı sözlü,, 15'i poster olmak. üzere toplam. 141 bildiri sunulmuştur. Sunulan. MdMlere ait makaleler düzenleme komitesi tarafından düzenlenerek GEOSOUND dergisinde yayımlanacaktır. Seopozym bflđiri özleri .kitabmda yeralan bildirilerin başlıklarları ve yazarları aşağıda verilmiştir.



ÇUKUROVA ÜNİVERSİTESİNDE  
JEOLÖJİ MÜHENDİSLİĞİ EĞİTİMİNİN  
20. YILI SEMPOZYUMU

*Bildiri Özleri*

30 Nisan-3 Mayıs 1997  
ADANA

Geç Kıravatemer (Holosen) döneminde İstanbul ve çevresinde gözlemlen, değişimler Engin. MERİÇ.

'Orta. Taraşların .kuzey kısmında bir YB/DS Neotetis dilimi: Koçkaya metaofiyolitik karmaşığı: Yitilen pasif bir kitasal kenar' kalıntı mı?; Levent ÖZGÜL, M. Cemal GÖNCÜOĞLU.

Olucak (Gümüşfaane-Torul) yörensi, Üst Kretase yaşı volkanik ve subvolkanik kayaçların petrografisi-petrografi ve tortul granitoyidi ile olan kökensel ilişkisi: Hakan ÇOBAN, Şemsettin C ARAN.

Osmaneli (Bilecik) yöresindeki *Orbitoides*&m. biyometrik incelemesinin ön bulguları: Muhittin GÖMMÜŞ.

Maden (KD Türkiye) resifal kireçtaşının birikim. koşulları ve Geç Krete paleocoğrafyasındaki konumu: Cemil. YILMAZ, FMevsAYAZ.

K/T toplu yok. olması öncesinde bentik foramnifer anomalileri: Nurdan. İNAN, lağım MERİÇ.

K/T geçişinde anonnal büyümüş *Orbitoides apicmiatus* Söhlumberger bireyleri: Niundan İNAN, Engin MERİÇ.

Trakya havzası kuzeybatısının. Orta-Geç Eosen, foraminiferlerinin paleoekolojisi le bölgenin paleocografyasına bir yaklaşım: Sefer ÖRÇEN, Aymur BCYDKDTKU.

Pazarlık-Sakçagözü-Kırşehir arası Paleoseo-Erken Miyosen çökellerinin, foramnifer fasyeleri. temelinde paleobatimetrik değerlendirilmesi: Sefer ÖRÇEN.

Neojen Pelitlik havzasının jeolojisi., Galatya volkanik provenisi (Ankan): Vedat TOPRAK, M. Lütfi SÜZEN.

Pelitlik havzası (Ankara) dolayındaki püskürme merkezlerinin jeofizik (Gravite ve manyetik) yöntemlerle incelenmesi: Seyfi Dah TUFAN, Vedat TOPRAK, Lütfi SÖZEN.

Uydu g&rüntülerinde sınıflandırma metodları ve jeolojik uygulamalarda kullanımı: Arda ARCASOY.

Tez Gölü havzasındaki evaporit mineralerinin ozakten algılaması yöntönü ile belirlenmesi ve haritalanması: Nadir Taşkın. AKPÜLAT, Arda. ARCASOY.

Temel bileşen anaframzı litolojik haritalama için kullanılması.: Erhan KANSU.

Orta-Batı Anadolu'da alkali volkanizma, manto ksenolitler ve tektonik ilişkilen M. Yılmaz SAVAŞÇIN, Tolga OYMAN.

Çakmak traSDt-porfirin. mineralojik-petrografik ve jeokimsal özellikleri: Yıldızeli, Sivas: Musa ALPASLAN..

Ağaçosen introzif takım: mm'pe.trolojisi (Aksaray): Yusuf Kağan KADIOĞLU Nilgin GÜLEÇ.,

Bolkardaoğlu, Aladağlar ve Niğde Masifinde kabuk kalınlaşması ve: Ulufaşla-Çamardi baseninde riffleme ile ilgili plütonlann karşılaşmaları incelenmesi: Orta Toroslar, Türkiye: Ali ÇEVİKRAŞ, Dunmış BOZTUĞ, Cavit DEMİRKOLOĞLU Sabah YILMAZ, Mustafa. AKYILDIZ.

İç Anadolu Alkali plütonizrnasmadaki Korkut Dağı ve Baranadağ ptitonlannda (D Kaman-KE Kn'şehir) silisçe aşın doygun (alkos) ce. silisçe tüketilmiş (alkus) alkali, kayaç birlikteliği: Naanlı OTLU, Dıraçlı BOZTUĞ.

iğdir Köyl (Yeşilova-Burdur) çevresindeki ofiyolitler ve bunlarla ilişkili, metamorfik kayaçların petrografik incelenmesi: Yahya ÖZPINAR.

Aygonmez Dağı napi (Fniarbaşı-Kayseri) Devonian-Triyas yaşlı diyajeniz-çok döştk mertebeli metasedimanter 'kayaçları' mineralojik ve petrografik karakteristikleri: Ömer BOZKAYA, Hüsnü YALÇIN..

Bursa-Hamidü katı atık alanının jeolojik ve hidrojeolojik incelenmesi: K. Tahsin ŞENYUVA & Okay EROSKAY.

Keb.au MagmatitLeri (Elazığ) sanidinlerinin jeokimyası: Hüseyin ÇELEBİ, Şahin HANELÇİ, Al SEYREK.

Bigadiç zeolitik tūfierinin bazı anyoialk iyon. değiştirmeye yetenekleri: Yılmaz B.ÜRKÜT, VUdan ESENLİ, Ahmet ÇELENLİ.

Çaynian-Bepazar Bölgesi (Ankara) tenaıt trôna yatakları oluşum koşuları: Yılmaz BÜRKÜT, Fikret SUNER, Vidan ESENLİ

Trakya Havzası Kuzeybatısında Üst Eosen yaşı töfierin hidrokarbon potansiyel: Aynur (GEÇER) B D Y G K U T K U , Nurettin SONEL» Mustafa BAYRAKTAR.

Tepearası formasyonu (Beyşehir güneydoğusu) dolomiuerinhi diyajenetic .gelişimleri ve rezervuar karakteri (Koraya,,, Türkiye): Ali SAMI, Erdogan TEKİN» Nurettin SONEL, İsmail. BAHTİYAR.

Karakaya Problemi: tektonostragrafi evrimi Ezerine öngörülen modeller ve Kozak uzanımı batısı, KB Anadolu ve tmahor bölgesi.» Ankara'ndan yeni bulgular: A. Alper ATILLA., Levent ÖZGÜL» Cemal GÜNCÜOĞLU.

Orta Anadolu ofi.yolitleriQ.in genel jeolojik özellikleri: Cemal GÖNCÜOĞLU, Kenan YALINIZ» Osman PARLAK, PJL FLOYD.

Dalma-batma zonu UşQ tipte ofiyüliterin oluşum ve yerleşme yaşları: Sankaiaman ofiyoliti, Orta. Anadolu, Türkiye: Kenan YALINIZ» Osman PARLAK, Sevinç (ÖZKAN) ALTINIM» Cemal GÜNCÜOĞLU.

Domaniç Neojen Havzasının ortams.al özellikleri: Yakup ÇELEK.

Kuzey Anadolu Fayı Zonunda Ağvanis metamorfierinin petlojenezine ilişkili, ön bulgular, Gilova (Sivas), KB Türkiye: Lltfl. ALUNKAYNAK, Salim GENÇ..

Maçka-Zigana (KB Türkiye) yöresinde Üst. Kreta.se sürecindeki yay-içi çökel kayıtları ve: bölge jeolojisindeki önemi: Cemil YILMAZ» Orhan KARSU.

Nurdandağı'nı oluşturan birimlerin yanlış adlandırılmasından kaynaklanan jeoteknik soranlar; Ilyas YILMAZER, Tamer Yiğit DUMAN.

Su basma ve K (a yatay/a düşey) değerlerinin tönel tasarımlına etkisi: Köraklı sıradaglanndaM bir örnek: Tamer Yiğit DUMAN, Ilyas YELMAZER.

FİHşten oluşan bir bölgede kurulacak organize: şaflayi sitesinin (OÖS) jeoteknik açıdan öndeperlendirilmesi: Batı Karadeniz bölgesinden bir örnek; Tolga ÇAN, Tamer Yiğit DUMAN, Ilyas YILMAZIM.

Kadınhanı peltik kayaçlarında kloritoyid içeren şistler: Büseyiñ KURT.

Seyhan ve Ceyhan Deltalarının kronolojik evrimi ve bunların kıyı değişimine etkileri: iKemaâ GÜRBÜZ..

Âdâna. Baseni kuzeyinde yer alan Miyosen yaşı denizaltı yelpazelerinin iz fosilleri yardımı ile artamsal özelliklerinin araştırılması: Huriye DEMİRCAN, Kemal GÜRBÜZ, Vedia. TOKER.

Topuk-Gönyikbelen sokolurnunoı mineralojik ve jeokimyasal özellikleri,» Qrhanefi-KB Anadolu: Yıksel ÖRGİFİN, Atilla, AK YOL.

Alt Ordovisiyen ö.cesi yaşı yay magmatizmasının Kuzey Türkiye'den bir ömek: Çaşurtepe Formasyonu "nun jeokimyasal incelenmesi (Bolu., B Pontidler): F, Ayda USTAÖMER» Erdinç KtPMAN.

Trakya Havzası kuzey şelfinde (Silivri civarı) Oligo-Miyosen delta çökellerinin sismik görüsömii; Taner TANIŞ» Nurettin SONEL,

Sivas Havzası kuzeybatı, kenarında Eosen soması kuzey yönlü bindirmeler: Imbrike yapılar: Selim İNAN..

Trakya. Havzası kuzeybatısında yeraltı veriler ile mikrofasiyes analizi: Aynur (Geçer) BÜYÜKUTKU, Gdksenin ESELLER, Nurettin SONEL.

Çevre Jeolojisi, ve jeofizik ile. K-Ocaeli-Kızlderbeli heyelan, ve erozyon alanı araştırılması, ve önleme teknikleri: Cengiz KURTULUŞ, Easan ENDES, Funda DÖKMEN, Savaş AYBERK.

Fele yöresinde Üst. Jtira-Alt. Kretase gelgit çevresi, karbonatlarının sekans, stratigrafisi (Batı Toroslar, Türkiye): tsma.il Ömer YILMAZ, Demir ALHNER, Muzaffer BEYAZITOĞLU.

Alt Kretase gelgit, çevresi ortamı karbonat istiflerinde metre ölüçlü devirsel çökeller (OzOmlü, Bab Toroslar, Türkiye): Nail AKÇAM, Demir ALTINIM...

Sulakyurt granitoyidlerinde açılan derivasyon tünelindeki des-tek tasannu: Aydın ÖZSAN, Yusuf Kağan KADIOĞLU.

(Çao.aïdkale)^ metamorfitlerinde görülen farklı türedeki buruşma klivajı ve fiziksel, koşularla ilişkisi: İsmail BİLGİN.,

Batı Toroslarda Geç Mesozoyik-T'ersiyer evrimine yaklaşım: Ci.de:-Devrek virgasyomı"nun gelişimi: Erdinç YİĞİTBAS, Ali ELMAS.,

Bolu-Eskipazar zonu'nun jeolojisi: IntraP'ontit Zonu^nun gelişimine bir yaHaşm: Ali ELMAS, Erdinç YİĞİTBAS, Yücel YILMAZ.

Tavşanlı zonimda (Batu Orta Anadolu) yer alan bazı granitoidlerin kökenel karçalastırılması: **Nuran SÖNMEZ**, Muhammed SATIR.

$H_2O-CO_2$  ( $GH^+$ -Nad sistemiyle temsil edilen karbonik "sivi kapanımlar ve iki örnek inceleme: Nuran SÖMMEZ» Zeynep AYAN.

Ezme Ayancık bölgesindeki magma kaynalarının jeokimyasal özellikleri: **Z. KARAGIK**, Y. YILMAZ.,

Eğirdir (İsparta) güneyinde yer alan Mesozoyik yaşı birimlerin petroljeolojisi yönünden incelenmesi; Ayşe BOZCU, FHUU YAĞMURLU.

Alt Ordovisiyen öncesi yaşı bir Kadomiyen aktif kenarında gelişmiş granitoidlerin (Bolu. granitoid kompleksi) jeokimyasal değerlendirilmesi (B Pontidler): P. Ayda USTAÖMER, Erdinç KİFMAN.

ForfiroWast sistemleri ve makaslama döriuminum belirlenmesiude **kullanımı**: Musa ALPARSLAN, Süha ÖZDEN, Jean Claude GCEZOU.

Trabzon civarı topraJdanndaki iyot konsantrasyoûları: Emine TAŞMAN.

Karamağara (Ketum) MoHbenit-Flüarit cevherleşmelerinin jeokimyası: Hüseyin ÇELEBİ,, Al. SEYREK, Şahin HANELCt.

Elazığ-Madeo bölgesi maden çayı boyunca bakır içiñ. biyojeokunyasal anomililerin incelenmesi: Zeynep ÖZDEMİR» Ahmet SAĞIROĞLU.

Bayburt-Kelldt havzasında Mesozoyik volkanizmasının zaman içindeki evrimi: Doğu Pontid magmatik yaym yay gerisi magmatizması (KD Türkiye): Osman REKTAŞ, Zafer ASLAN, Nezih KÖPRÜBAŞI, Mehmet ARSLAN.

Uluçnar (Aisuz) ovasının hidrojeoloji incelenmesi: Nezih YAVUZ, Aziz ERTUNC.

Gökova tuzlu kaynalarının hidrojeolojik model: Ali Malik GÖZBOL, Okay EROSKAY.

Sivrihisar Neojem göl basenindeki farklı jips olösumlanoın du-raylı izotoplara (8180;813C) göre ortamsal yorumlan: Zehra KARATAŞ.

Yunusemre (EsMşehir) listvenitlerin jeokimyasal ve jeoistatiksel incelenmesi: Ali REÇBER, Şükri Koç, Yusuf Kaan KADIOĞLU. •

Sulakyurt plütonunun günlenme ve alterasyon dereceleri, Kırıkkale: Yusuf Kaan KADIOĞLU, Aydın ÖZSAN.

Marmara Denizi güneyinin güncel planktik foraminifer yayılımı: Aynur HAKYEMEZ» Vedlez TOKER.

Miyosen yaşlı Sultançayır bavzasındaki evaporit olaşamlaimda sttfat ve 'borat ilişkisi (Batu Anadolu, Türkiye): C. HELVACI, F. ORTİ, L. ROSELL, t GİİNDÖĞAN.

Alüvyon zeminde (Konya) ıslanmaya oluşan göçmeler: Adnan ÖZDEMİR.

Loras Dağı-Çaldağı, iie Hatunsaray (Konya batısı) arasmada katan bölgenin, stratigrafisi ve bazı. tekto:nik özellikleri: Ahmet TURAN, Şuayip KÜPELİ, fikay KARAKOÇ.

Silifke batısında göksit vadisi boyunca yüzeylenen Miyosen öncesi oluşukların tektonostratigrafik ö'zelikleri: Ahmet TUMAN, Fetulbh ARK.

Mekanik Rôle Separatöri iletken tank. model çalışması: Tekim YEKEN,, Cengiz KURTULUŞ.

Kıyı akiferlerinde deniz'suyu intnizyoauna-bîr örnek: istanbul Tuzla içmeleri: t BARUT, O. EROSKAY.

Kopdağı (Endncan) .kromitlermin. aranmasında kuUanılabilecek mineralojik, pêtrografîk ve yapısal kriterler; Masan KOLAYLL

Kop ultramafMefioin (Erzmcان-Erzunuu) mineralojik ve petrografîk, özellikleri; Hasan KOLAYLI.

Orta Anadolu'da kabuksal defbnnasyoomu paleomanyetik yöntemlerle inceleninesl: O, TATAR, J3A, PİPEE» H. GORSOY,H. TEMİZ.

Gediz. Grabeninde gttnoel deformasyoo verü.eri: Halil GÜRSOY, Haluk TEMİZ, Orhan TATAR» Aykut BARKA.

Yave batısında (Yıldızeyü-Sivas) Orta Anadolu bindirme kuşagının stratigrafisi ve tektoniği: Fikret KOÇ1ÜLUT» Ortan TATAR, Halil. GORSOY.

Kuzey Anadolu Fay Zoou'nuo kinematiği ve sisnotektooigi: SemflıOVER.

Kırkgeçit (Biga/Çanakkale) tennamineral kaynağının bîdrojeo-ö'kinnyasal incelenmesi ve sıcak suyun insan sağlığına etkisi: Rfistem PEHLİVAN,

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Samsun merkez yeraltısuyu kalitesinin incelenmesi: Salih YÜKSEL, M. Tahır NALBANTÇXALAR, NiJglıı BAYKAYA, A. Nur OMAR»

Deielî-Şebinkarahisar (Giresun) arasmada yttzeylenen Doğu. Foetid plitonizması petrojenezinde .magma karışımı fraksiyonel kristalleşme, kabnnksal kirlenme ve kısmi erime- süreçleri: Sabah YILMAZ, Durmuş BOZTUĞ.

Çörek (Divriği-Sivas) ve Güvenç, Karata (Heldrahan-Malatya) bölgelerindeki Geç Kietase Ofiyolit melanjları içerisindeki silika, karbonat (Listvenit) kayaçların jeolojisi jeokimyası ve mineralizasyonu: Ali UÇURUM» Lawrence T. LARSON, Durmuş BÖTÜĞ.

Acipayam Ovası (Denizli) ana kanal güzergahında gelişen, kama tipi kaymanın geri analizi yöntemi, ile incelenmesi: Hail KUMSAR, Mehmet AKGÜN, Turgay BEYAZ» Ömer AYDAN..

Gürpınar Foymasoniyadaki kite hareketlerine hidrojeolojik koşullann etkisi: t Hail ZAMİF» A. Malik GÖZÜBOL.

İstanbul'daki tarihi eserlerde kollanılan Bakırköy kireçtaşına atmosferik parametrelerin etkisi: Okay GÜRPINAR,, Cemil SEYİS, Aleye TUĞRUL, L Bali ZARIF.

İzmit genç: çekellerimin, temel oyma nitelikleri: 1. Hali, ZARIF, Atiye TUĞRUL» Okay GÜRHİDNAR, Feri»n TEMEL.,

Cingöz Denizaltı yelpazeleri. (Adana Baseni-Türkiye) ağır mineral analizlerinin provens araştıralanında kulamımları: İlسا YILMAZ» Kemal GÜRBÜZ.

Terkedilmiş maden ocakları (Pb-Zn yatakları) ağır mineralerin çevreye etkisi: Adem ERSOY.

Tuzhisar (Sivas) kayamzu kristallerinde avı kapanım incelemeleri: Fuat Ceyhan KOPTAGEL, Ahmet EFE.

Doğu. Pontid magmatik arkında (KB Türkiye) neptuniyen daykları ve blok tektoniği; Mesozoyik havzaların kinematiği ile ilgili bulgular: 'Osman BEKTAŞ, Şenol ÇAFKINOĞLU.

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Madenfiy (Çayeli, .Rize) masif sülfit yatağında cevher merceğiinin jeolojisi, ve mineralojisi üzerine yeni gözlemler: Miraç' AKÇAY, Mohammed AMAM.

Paleozoyik yaşı Gümüşhane granitoidi içerisindeki kalk-alkalen lamprofilerin jeolojik,, mineralojik ve jeokimyasal özellikleri: F, AYDIN, C. ŞEN, MM, SADIKLAR.

Gümüşhane köyü (Artvin) yöresinde çok fazlı magmatik sokuşumlar ve onurlarla ilişkili porfiri Cu-Au cevherleşmesi: Miğraç AKÇAY, Ömer GTİNDÜZ» Hakan ÇOBAN.

Muğul Cu madeni çevresinde ağır elementlerin yanal dağılımı ve çevresel kirlilik üzerine etkileri: Mihraç AKÇAY, Necati TÜYSÜZ, Nigar ALEMDAĞ.

Mersin Ofiyolitlerin ada. yayı ortamında olduğunu gösteren jeokimyasal veriler G, Tiridye: Osman FAHİLAK,, Ergizci BİNGÖL, Michel DELALOYE.

Mersin ofiyolilinde metamorfik dilim, ve izole daykları jeokimyası ve. 40Ac/39Ar jeokronokjisi (G, Türkiye): ösmam PAELAK, Ergizer BİNGÖL, Michel DELALOYE.

Kızıldere (Denizli) Jeotermal enerji sahasının reenjeksiyon olanağı: N. AKSOY, Ş. FİLİZ.

Hatay-Reyhank barajdım mühendislik jeolojisi incelemesi: Sedat TÜRKMEN, Servet BAHADIRLI.

Denizi Kızddete JOTennal sahasında açılan TH-2 reenjeksiyon sondaj kuyusu verilerinin hidrojeolojile, değerlendirmesi.: Ş. FİLİZ, BX. ÇETİNER.

Zonguldak (Velibey) kumtaşları endüstriyel kullanım olanağlarının arastırılması: Şenol YÜCEL, Gürkem BACAK» ibsn TOROGLU.

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Hadim Napi Üst Permiyen stratigrafisi ve paleontolojisi: GılgıOn GÖKTEPE, Trancer GÜVENÇ., '

Yozgat Batoliü GB kesiminde (Şefaath-Yericöy »ası) FC ve magma mmglmg/mximg stireşfeinin. kanıan: Sibel TATAR., Durmuş BOZTUĞ.

AnatoBd-Pontid çarpışma sisteminde pasif kemamÄ yer alan Yozgat Batolitinde syn-colg ve post-colg granitoidi bilikliliği: Taner EKİCİ» Dvrmaş BOZTUĞ.

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Ayvacık (Çanakkale) tenterait yataklarmlaki beidellit oluşumu Fazlı ÇOBAN.

Yozgat Batolitinin Petrografisi,, iz-dement jeokimyası ve petrografisi: Nurdan S. AYDIM

Yeni yerleşim alanlarının belirlenmesinde yerbilimi, verilerinin, kutanımı: Hidayet TAĞA, Cavit DEfMILK.OL.

Güvenç^ köyü (Adana) civannndaki s.edirmanların mineralojik ve. kimyasal bileşimi: Meltem SAYARSLAN, Fend ÖNER.

Aydincık (tçel) yöresinin jeolojisi: Hayati KOÇ,, Erol ÖZER,TfirkerÖZSAYAR.

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Bakırköy havzası (istanbul) Tersiyer çökeierinhı ostrakod faunası: Ümit ŞAFAK.

Güneşli çöp dekim alanında jeofizik araştırmalar: Mehmet GÜZEL, Şaziye ABACI. '

Bir çarpışmanın kilometre taşları olan Arabistan çevresi ofiyolitleri; olaylar ve sorunlar: Michel DELALOYE.

Antakya ve ci.vann.daki. potansiyel deprem kaynaldanın olası maksimum yer ivmesi azalımı: Alican KOP, Hasan ÇETİN.,

Sokeüi kaya temelleri: NUdan YALÇIN, Allay ACAR.

Büyük Menderes oft zanunda yer^ alan Kızıldere Salavath ve Germencik bölgesi jeotermal sularmm Hidrojeokhnyası ve *imtDp* jeokimyası: Nevzat ÖZGÜM.

Türkiye'nin tektonik birimleri ile rnetalojenezi. (cevher yatakları) arasındaki ilişkiye .kisa. 'bir bakış: Atilla AK YOL.

Anadolu Platformu Üst Paleozoyik stratigrafisi ve paleontolojisi: Turner GOVENC.

tntemet\*in yerbilimlerinde öğretme ve öğrenme .amacı ile kul.., lanımı: M. .Zeki BİLLOR.

Kopdağı kromitlerium mineralojisi ve jeokimyası: M. Zeki BİLLOR.

fiahçe-Hanmiye (Adana) ofyoBtine bağlı kromit cevherleşmesi: Ender SÄWFAKİÖG1LU, Mesut AML.

, (Hatay) ve güney kesiminin stratigrafisi w tektoniği: UM Can ONLOGENÇ, Alkan KOP, Yavuz DOKUMACI, Cavil DEMİRKOL.

Ortaköy civannın (Şarkışla kuzeyi-Sivas) jeolojik incelemi: UM Cam ONLOGENÇ » Mahmut EEOĞLU.

Adana. Baseni Tersiyer' stratigrafisi. Özerine yeni gözlemlen Ulvi Can ONLOGENÇ.

## DÜNYA ENERJİ KONSEYİ KONGRESİ

Dünya .Enerji Konseyin 17. Kongresi 13-18 Eylül 1998 tarihleri »asmda. Höustcm-Texas'ta yapılacaktır. Kongremen Ana Teması, "Enerji ve 'Teknoloji: Gelecekte bin yıllık dönemde dünya kalkanmasının sağlanması" olan. bu kongrede işlenecek konular aşağıda 4 başlık altında toplanmıştır:

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- \* Enerji kaymakları ve teknolojisi..»
- \* Çevresel, komıllann, teknolojilerin ve stratejilerin, kalkınma ve uygulamadaki etkileri,
- \* Enerji endüstrisindeki tekrar yapılanma.

2. Bölüm: Bilinen kaynakların uygulanması ve gelişimi İçin kullanılabilecek sistemler

- \* Bilinen enerji kaynaklanması yaygınaşırılmasında teknolojinin rolü,
- \* Enerji kaynaklarının dağılımı ve korunması,
- \* Bilinen kaynakların kullanımının artışı için toplumsal uygulamalar.

3. Belim: Kaynakların, sistemlerin ve servislerin gelişmesindeki roller

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- \* Nükleer ve tekrar kullanılabilir kaynakların kullanılması için teknolojik gelişmeler,
- \* Enerji dağılımı ve kollarımda ekonomik kavramlar»
- \* Bilinmeye kaynakların kullanımda sosyal topluluklar.

4. Geleceğin yaşatılması için kavramlar

- \* Daha az enerji sağlayan sistemler,,
- \* Enerji kaynaldanndaki. ve- sistemlerindeki teknolojiler,
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## *Jeoloji Takvimi*

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1-4 April 1997

#### *THE LATE QUATERNARY IN THE EASTERN MEDITERRANEAN*

(International Symposium), Ankara, Turkey.  
• (Neil Roberts) Department of Geography,  
Loughborough University, Loughborough  
LEI 1 3TU. UK. Telefax: 44 1509 223 930;  
e-mail : c.n.roberts@lboro.ac.uk)

6-9 April 1997

**AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS** (Annual Meeting), Dallas, Texas, USA. (AAPG Conventions Department, P O Box 979, 1444 S BouWen Ave., Tulsa, OIC 74101-0979. USA. Phone: 918 560 2679; telefax: 918 560 26841

7-11 April 1997

**ANALYTICAL BASED MODELING OF GROUNDWATER FLOW.** Nunspeet, The Netherlands. (Conference Secretariat. Analytical based modeling of groundwater flow. Buerweg 51, 1861 CH Bergen. The Netherlands. Phone: +31 (0) 72 58 990 62; telefax: +31 (0) 72 58 99040)

8-9 April 1997

**THE NORWEGIAN SHELF—A MATURING AREA OF SIGNIFICANT FUTURE PETROLEUM POTENTIAL,** Stavanger, Norway. (Norwegian Petroleum Society. PO Box. 1897, Vika, N-0124 Oslo, Norway. Phone: +47 22 12 90 08; telefax: +47 22 55 46 30)

8-10 April 1997

**PRINCIPAL GENETIC PROBLEMS RELATED TO MINERAL DEPOSITS OF MAGMATIC AFFILIATION,** Moscow,, Russia. (N S Bortnikov. Secretary of the Symposium, IGERM RAS. Staromooetny per., 35. Moscow 109017. Russia. Phone: 095 230 8259; telefax: 7 95 230 2719; e-mail: sympo@igem.msk.su)

13-16 April, 1997

**UPPER MANTLE HETEROGENEITIES FROM ACTIVE AND PASSIVE SEISMOLOGY** (NATO Advanced research workshop). Moscow Russia. (Professor K Fuchs. Geophysical Institute. Herzstr 16, D-78167. Karlsruhe. Germany.)

14-18 April 1997

**PLUMES, PLATES AND MINERALISATION** (International Symposium), Pretoria, South Africa. Professor S A de Waal, Department of Geology, University of Pretoria, Pretoria 0002, South Africa. Phone: 27 12 420 2454; telefax: 27 12433430; e-mail: ppm97@scienzia.iip.ac.za)

17-19 April 1997

**EARTH'S UPPER MANTLE STRUCTURE BASED ON INTEGRATED GEOLOGICAL AND GEOPHYSICAL STUDIES (EROPROBE Conference).** Moscow, Russia. (Professor K Fuchs. Geophysical Institute. Herzstr 16. D-78167. Karlsruhe. Germany.)

23 April-3 May 1997

**INTERNATIONAL ASSOCIATION OF mDRO.IBG.JCAL SCIENCES < 3lh** Scientific Assembly, Rabat, Morocco. GG-D Young, IAHS, Department of Geography., Wilfrid Laurier University Waterloo, Ont N2L 3C5, Canada. Phone: 1 519 884 1970; telefax: 1 519846 0968; e-mail: 44ians@mach1.wlu.ca)

24-29 April 1997

**PALEOCENE/EOCENE BOUNDARY EVENTS IN TIME AND SPACE** (Geological Society of America Penrose Conference). Albuquerque, NM. if Spencer Lucas, New Mexico Museum of Natural History, 1801 Mountain Road NW, Albuquenue, NM 87111, W. E-mail: Lucas#darwin.nnmimnnh-abt.mus.nm.us )

### May

5-7 May 1997

• **ASSOCIATION OF GEOPHYSICISTS OF ALBANIA**, Tirana, Albania... (Burhan Canga. Faculty of Geology and Mining. Tirana, Alitalia)

10-15 May 1997

• **PALAEOCUMATIC MODELLING AND ANALYSIS: QUATERNARY PALAEOCUMATIC ANALYSIS,** Castelvecchio Pascoli, Italy. (Dr Josip Hendekovic. European Science Foundation, I quai Lezay-Mumésiu 67080 Strasbourg Cedex. France. Phone: +33 3 88 767135; telefax: +33 3 88 366987; e-mail: eureso@3&csf.org; WWW: http://www.3&csf.cirg.carsc.cn 31

9-11 May 1997

**SECOND BRITISH COLUMBIA PALEONTOLOGICAL SYMPOSIUM.** Vancouver. British Columbia, Canada. (Vancouver Paleontologists' Society, Centre Point Post Office.. PO Box. 19653, Vancouver, BCV5T4E7)

11-14 May 1997

**NEVES CORVO FIELD CONFERENCE** (Meeting of SEC). Lisbon, Portugal. CF JAS Barriga, GEOFCU, Edifício C2, Piso 5, Campo Grande 17000 Lisbon, Portugal. Phone: 351 1 750 0066; telefax: 351 1 759 9380; e-mail: fernand.barriga@fc.ul.pt www: http://NevesCorvo.geatc.ul.pt )

17-19 May 1997

• **EUROPE'S MAJOR CO2 DEPOSITS** (International conference and field trip). Newcastle. County Down. Northern Ireland. (Kerr Anderson. Navan Resources plc. Kennedy Road, Navan. Co. Meath. Ireland. Peofie: 353 46 22363; tefan: 353 46 22.372; e-mail: navan@id.ie 1

5-9 May 1997

**OTTAWA '97** (Geological Association of Canada, 50th Anniversary Celebrations), Ottawa, Canada. (Conference Secretariat. Ottawa '97, Geological Survey of Canada. 601 Booth St, Ottawa, Ontario, Canada K1A 0ER. Phone: 613 947 7649; telefax: 613 947 7650; e-mail: ottawa97@cmr.ca; www: http://www.emr.ca/~ofia/wa97/fip/orca.n.gc.ca. directory gsc/oilawa97)

22-25 May 1997

**CANADIAN COASTAL CONFERENCE 1997**, Guelph, Ontario, Canada. (Canadian Coastal Conference '97, c/o Department of Geography, University of Guelph, Guelph, Ontario, Canada N1G 2W1. www: http://www.cci.w.ca/bcsea/intro.htm)

25-30 May 1997

**GEOCHEMICAL EXPLORATION i Mi** International Symposium of AEG., Jerusalem, Israel. (IGES Secretariat. PO Box 50006 Tel Aviv, 61500 Israel. Telefax: 972 : 5140000; e-mail iges@jmail.igs.gov.il)

26-30 May 1997

**EUROPEAN ASSOCIATION OF GEOSCIENTISTS AND ENGINEERS (EAGE)** (59th Conference). Geneva, Switzerland. «EAGE, E H Bornkamp. PO Box 298, NL 3700 AG Zeist. Netherlands. Phone: 31/3069 62 65.5; telefax: 31/306962 640)

### Juile

1-5 June 1997

• **GEOANALYSIS '97**, Vail, Colorado, USA. (Belinda Arbogast. USGS. Federal Center. Box 25046, MS 973.. Denver, CO 80125. USA. Telefax: +1-303-2363200; e-mail S: geo97@helios.cr.usgs.gov J

1-6 June 1997

**SEDIMENTATION, SEDIMENTARY EVENTS AND HYDROCARBON SYSTEMS** (Annual joint CSPG.SIIPM Convention). Calgary, Canada. (CSPG Office, 505 206 7th Avenue SW. Calvin Alberta, Canada T2P OW7)

2-4 June 1997

• **SECOND GENERAL ASSEMBLY OF THE EUROPEAN ASSOCIATION FOR THE CONSERVATION OF THE GEOLOGICAL HERITAGE (PROGEO).** Tallinn, Estonia. (Rein Raudsep. Geological Survey of Estonia. Kadakee tee 80/82, EB0026 Tallinn, Estonia. Phone: B721 2 593 964; telefax: 072) 6 579664: e-mail: egk@estpak.ee)

4-12 June 1997

• **TETMYAN AND BOREAL CRETACEOUS** (Working Group Meeting, of K3CP Project 362), Baku, Azerbaijan. (Mascha, Tiemssen. Laboratory of Palaeobotany and Palynukogy Budapestlaan 4, 3584 CD Utrecht. The Netherlands. Phone: +31 30 2532n29: +31 31 2535096; e-mail: M.Tiemssen(S\*h<sup>+</sup>ev.nioLnui.nl )

10-12 June 1997

• **STRUCTURE AND EVOLUTION OF THE MINERAL WORLD.** Syktyvkar, Russia, f'Di V Radzii, Institute of Geology Komi Sci. Centre Ural Div. RAS. 54 Pervimaydiaya str., Syktyvkar 1676Hi Russia.. Phone. •(8212) 42 00 37: telefax: (8212)42 .53 4ft; e-mail: sem w@geoxlereza.kom i. su i

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August lend) 1997  
 • *CARBON-CONTAINING FORMATIONS IN GEOLOGICAL HISTORY* (Regional Conference), Fetrozavot&k; Russia. I Dr S i Rybakov. Institute of Geology of Karelian Division of RAS» ul. Pushkina, II Peirazavitsk 185000 Russia)

## September

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- *CHALLENGES TO CHEMICAL GEOLOGY '97* (10th meeting of the Association of European Geological Societies), Carlsbad, Czech Republic... (Dr M Novák. Czech Geological Survey, Geopicks 6, 152 00 Prague 5.. Czech Republic, telefex: +42-2-5818741; e-mail: maegs@geu.cz; www: ht tp://www.geu.cz/maegs/h tral J

1-5 September 1997

- *GEOLGY AND ENVIRONMENT. IPm* of 50th Geological Congress of Turkey), Istanbul, Turkey. (Associate Professor Dr Ityas Yitmazer, Yenisehir Bayindir Sokak 7/L PO BÜX 464, Yenisehir 06444, Ankara. Turkey- Phone: 91) 312 435 07 17; telefax: 90 312 434 23 8K; e-mail: tmmobj-o@servis2.net.ir; www: ht tp://www.i.mfo-niinc.x.com/venu si access/970901 geo.htmil)

1-5 September 1997

- IEC W: FIFTH INTERNATIONAL ECI/KITE CONFERENCE*, Asama, Switzerland. (Professor V Trommsdorf and Dr R Schinid. Mineralogy IEC 97., ETH centre.. 8092 Zurich. Switzerland. Phone: XX41 1 632 379:1: idk" fox:XX41 1 6321088; e-mail: rolf@berdw.eth.tch:)

2-4 September 1997

- W AQUIFER SEDIMENTOLOGY*. Hekelherj. Germany. CT Aigner, Institute of Geology. University of Tübingen» Sigwarsif 10. 721076, Tübingen, Germany. Phone: +49 (0) 7071 29 59 23; telefax:+49 (0) 7071 29 69 90; e-mail : i.aigner@uni-tuebingen.de)

2-4 September 1997

- PALAEONTOLOGY AND STRATIGRAPHY OF SOUTH AMERICA* /2nd European Meeting, in conjunction with the 18th International Meeting on Sedimentology). Heidelberg, Germany.. (Peter Bengtson, Geologisch-Palaontologisches Institut, im Neuenheimer Feld 234., D-69120 Heidelberg, Germany. Phone: 49 6221 548293.; telefax: 49 6221 548640; e-mail: Peter.Bengtson@urz.uni-heidelberg.de. WWW: http://ix.urz.uni-heidelberg.de/~dc/g>/lst-sam.htmU

2-^ September 1997

- SOUTH A TIANIC MESOZOIC CORRELATIONS* (Regional Meeting of IGCP Project 3X1 j. Heidelberg, Germany. (Peter Bengtson.. GeoLogisch-Palaontologisches Institut, im Neuenheimer Feld 234., D-69120 Heidelberg Germany.. Phone: 49 &21 54X2\*13: telefax: 49 6221 548640; e-mail: Fcier.BcnpscHi(\$urz.uni-hekclherf.de:

uni-heidelhfrp.de/~dc8/gcii/lsl-3K l.in all I

2-7 September 1997

- *GOJI> MINERALIZATION AND GRANITOID MAGMATISM IN THE NORTHERN PACIFIC*, Magadan., Russia. (Scientific Secretary of the Conference. 16 Prtovaya. SVKNII DVO RAN, Magadan 68500. Russia. Phone: 4 J 3-22-30H<; telefax: 413-22-3005 i ; e-mail: nxH # nestri. magadan. su)

7- 10 September 1997

- AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS* (International Conference and Exhibition). Vienna, Austria. f AAPG Convention Department, Box 979 Tulsa, OK 74101, USA. Phone 1/918 560 26 79; telefax: 1/918 560 26 84)

10-12 September 1997

- *INTRAPLA TE MAGMA TISM AND TECTONICS OF SOUTHERN AFRICA*. Harare» Zimbabwe. (The Conference Secretary., Geological Society of Zimbabwe, PC) Box CY1719, Causeway, Harare, Zimbabwe. E-mail: hmunyan@geology.uz.zw)

10-15 September, 1997

- FAULTS AND SUBSURFACE FLUID FLOW: FUNDAMENTALS AND APPLICATIONS TO HYDROGEOLGY AND PETROLEUM GEOLOGY* »•Geological Society of America. Penrose Conference). Albuquerque and Taos, New Mexico. (William C. Haneberg. New Mexico Bureau of Mines and Mineral Resources. New Mexico Institute of Mining and Technology., 2808 Central Avenue SE AUViMuerquNMS7106. B-mail: hanehcrg@nm.edu)

10-15 September 1997

- *PALEOGEOGRAPHICAL AND GEODYNAMIC CONDITIONS OF VOLCANIC-SEDIMENTARY ORE FORMATION*, Miass, Russia. (Professor V Popov. Srdny 74, V.SEGEL. 19902 6 St Petersburg., Russia.. Telefax: 7 812.213 5738; e-mail: vsg@sovam.csomI

1-0-25 September .1997

- *THE ECOLOGICAL SETTING OF EUROPE—FROM THE PAST TO THE FUTURE: HUMAN INFLUENCE ON THE ECOLOGICAL SETTING OF EUROPE SINCE THE BEGINNING OF THE HOLOCENE*, Casilevecchio Pascoli, Italy, f Dr Jnsip Hendekovic, European Science Foundation. 1 quai Ijezay-Mameci: 67080 Sirashirk Cedex.. France. Phone: +13 3 88 767135; telefax:+33 3 88 366987: c - m a ii 1 : e itresco @csf.org : WWW: hHp://www.esf.org/cfwfcsoi

11 • »4 September 1997

- AiMWBCA-ALPINE EVOLUTION OF THE WESTERN CARPATHIANS AND RELIK TED AREAS* (International Conference held \*n ih «ccasinin of lime lñfth anniversary «lli the hñth nmPof?»or D Andrusov ), itaii Kliva, Slovakia. (Dr Josef Hoik. Slovak k'li^ic;il Society. Mlynvkii Dol. ... SK-K17h\*4, Braislavu. Slovak Republic. Phute: +.12-7-37115445: telefa.: +.12-7-37194(h cñ m i l : hoc(\*j2iids. siinet.sl, I

y- i 2 SepUinher 1997

- OFFSHORE EUROPE '97* (Oil and Gas lixihi liinn und Conference), Aberdeen. Seal lan, I. L.IK. \*Offsho Horope i PittiRTs-hip. Ocr;in ill a UM'. 5t Kin IM on Riad. Ncw MüDdci. Smr rny K'H 3l.Z.. UK\*.

14-18 Scpiemher i 997

- EXPLORATION '97 t4ih Decennial liKernal Conference,.. TimonKK Canada. (I Mac Lend. Geosof Sue, Suic SK), 204 Richmond. Sired W. Toronto. Ontario ON M5H2C4. Canada I*

IS-JKScpicniber 1997

- *EAGEEAGE/SEG MOSCOW '97* (International Conference and Exhibition), Moscow, Russia. (I-AGH. W) Box 298., 3700 AC Zeisi. Tie Netherlands

15-25Scpieniber 1997

- SOUTHERN NEW ENGLAND -OROGEN, AUSTRALIA* «SCCS Field and Ckneral Mceting 1997). Arniidulc. Ausiralia. (Or kin Meicalf, Depannim ol'(kolo^y and CiclopliMcs. University of New England. Arntidate. NSW 2351, Australia. Phone: 61 b1 7.1 2Äft (ele- lax: 61 67 73 3300: e-mail: imetcalf^inci/.uiic.cdii.au I

16-19 September 1997

- PIACERS AND WEATHERED-ROVK MINERAL DEPOSITS* « 11 th Internationuj Symposium). Muscnw-Dubna. Russia. (N Patyk Kara.. Institute ol'Geotoly »fOre Deposits, Petrography, Mineralogy and GeochiniMry of RAS, Stan »inoiuiny per., 35. Moscow. 109017.. Russia. Phone: 0ÜT 095 23(18427: icliax: «> 95 230 ?1 79: e-mail: pkani(iigan.mosk.wij

2D-25 September IW7.

- *POLAR REGIONS AND QUATERNARY CUMATE: QUATERNARY CÍJMA TE—INTERHEMISPERICALCOUPIJNG*, Acqufreddu di Maralca, Italy. (Dr Jusip Hendekovic. 1-Junspe. Science I« Hind ali an.: (Ui), i e-ay-;M;yiiesia 67080 Sir;isboorg Cedex. France. Plume: 433 1 8R 767135: ieclax:+33 3 88 3669H7: e - m a i l : eur CM: II Crcs l. c if pi : WWW: hHp://www.esf.in-g/eyrcsco |

21-27.September 1997

- GROUNDWATERIN THE URBAN ENVIRONMENT*(27th IAH Congress). Nouingham. UK. C Professor J D Malher.. Geology Depu Royal Holloway and Bedford New College. Hgham. Surrey "I W20 0EX. UK. Telefax: 7K4 47178»)

22-24 September 1997

- *ELBA ISLAND: A KEY PUZ/Jji LINKING THE CORSO-SARDINIAN MASSIF AND ADRIA*. Oba. IsJand. Jíily. «Mrs Ornella Ptlasli. KlICA Serai:iry. Diparimcnodi Seicn/e Terni. unnxIMii» di l-ircn/. via La Pira 4. Firen/e 5(1121. Italy. Telefax: 139H5123023(12: e iiil: «li<< csil I -unili.fl

23...28September IW7

- TBCTONICS OF CONTINENTAL INTERIORS* «Cical»\_ical SIK-iely of America lcnreicse CinnfercncJ. Brian Head Reson neaf C'edai t'n\, i lñi i Michiel HijnhurgcT. IXcpt. •t C'k'o.l'IL.i Sciences. Indiana, I IniverMiy. BhKHninginn. IN 47405, USA. li- mai J: luimburi: «>•cs iiidiiua.edu J

2K Sopicinher- 2 (ki-oher tW7

- *BRA/JUANGEOPHYSH'AL SO<:iETi,,* (5ll i inicrvitMinal C^ingcss).. Sa\*i PnUx. Ura/ll.. n'efhnksil Piatriain ('ura «m me, kean.» Vititrlh). irvt'K.Cuixa Piwtal 515. 122OI-7<> SiiHJoNe' ão| Cainpins, S;#i Paulo. Hr.n/iil

- Li...21 June IW  
 • / / Til INTERNA 11 ONA L CIA Y CONFERENCE.. Ottawa.. Ontario. Canada. [Jemine PercivaJ. Geological Society of Canada, MM Rnoih Si. Ottawa. Ontario Kil A CO. Canada. Telefax: 613 V43-12H7]\*  
 \* 17 June I\*W  
 • i BiOSTRATIGRAPHY IN PRODUCTION AND BE VEI.OPMENT GEOLOGY. Aberdeen. UK. iiVI SiimnKmns. IDepartmen of Geolugy and Petroleum Geology. University of Aberdeen. Mesiim Building. King's College. Aberdeen, AB. IDE. VK  
 IS. # JtiK\* /W  
 IA TE QUA TERNARY COASTAL TECTON-ICS.. Lviiiton UK (Claudio Vita-Fin/i. Geo-In^icul Sciences. University College. Gower SL LOIKKHI WC1K ftBT. Phone: 44 171 3X717S>e\ .23X3; telefax: 44 171 38X7614:  
 20-25 June IW  
 • TOURMALINE 1997 (International SymijX>NlilnijL .Move Město na .Moravě. Czech Republic. tM Novak. Department of Mineralogy and Petrography., Moravian Museum. Zlch trh6. 6,59 37 Birno Czech Republic. Telefix iM5(42 21 27 92)  
 23-27 June IW  
 ENGINEERING GEOLOGY AND THE ./".M7lif" AfriiV7\* ( International Symmtsttum ui IAECri. Aifcn. Greece. iSymposium Secretariat. PO Box 1\*)l4Ü. GR- 1 17 10 Aliions. fireec. Telefax: .301 381 39\*);, 301  
 jfo 21 June JW  
 • L XRA % ELLING TECTONIC AND I LIMA TIC SIGNA LS IN SEDIMENTARY SUCCESSIONS. I.imdim. UK. i,L F-Vosirick, UnKersiv oí Hull. Cu\*ingki.ra Rd. Hull H1.6 7RX. UK. i

## July

- 1 4 July IW  
 • EUROPEAN CURRENT RESEARCH ON FLUID INCLUSIONS,, Nancy.. France. (XV HCRORH. CRXILi. BP 23. 54501 Vendevrcle->-Nancy Codex. France. Phone: +3.3-83-441 AMX {elei;w:+33-83-44O29; e-mail: a-n \* H t\*c re g u. c n r s, n a ne y. IV)  
 1..10 July IW  
 REMOTE SENSING TECHNOLOGY, MEASUREMENTS AND ANALYSIS fird International Conference\*. Copenhagen. Denmark. (Robert Risers.. ERIM Cemtufences. Box II 34)01. Ani Arhor. M! 4K11.V4ÜCM. USA. Plume: 313 W4 1200; telefax: 313 W4 5123; e-mail: raecler@eirim.ofg; WWW : http://www.eirim.org/CONF/)  
 7-11 July 1997  
 • i SE.G/JEMO/EAGE ISTANBUL "97 <International Gophysical Conference and Exposition). Istanbul.. Turkey. (HAG.R Conferences hv. PO Ikm 298, 3700 ACS Zeist. The Netherlands)  
 12 17 July 1997  
 VERTEBRATE MORPHOLOGY (5ih Interna-linal Cmigress. Bristol. UK. (J M V Raynor. School of Biohigical Sciences., University of Bristol. BSS 1UG. UK. Pfiwe: 44 117 92K M1; telefax:44 117025 7374; e-mail: icvm97C#briMi>l.ac.uk)

- 1997  
**WATER POLLUTION MODEUNG. MEASURING AND PREDICTION i-lh**  
 Imteraiiiiutli Ctnisfrance k nWesscx. liiNiiimic of Technology. Ashtirst Lodge. Ashum. SouihampUHi"(>407AA. UK. Plaw.44 17>> 2M2853: e-mail: WIT6>wessex.wiici:iii.ac.uk;. hup // w w w. w it c im i. ac. nk )  
 2(-24 July IWJ  
 M HYDROTHERMAL REACTIONS «5th InternatKial Symposium), (iatlinhurs. Tennessee. USA. USHE "97. ORML. "Bk% 4500S. PO Bew 2008. Oak Ridge. TN >Hf I . 611(1 USA. Phone +1-423-376-5 H W: \*-1-423-574-4961.: e-mail: tklp&Mrnll.gov »  
 20-27 July 1997  
**DEVONIAN CYCUCITY AND SEQUENCE STRATIGRAPHY** (SuhciMuinissim on Devonian Stratigraphy Sympoviya int lichtl trip\*). Rochester. New York. USA. (Wittisun Kirchgasscr. Department ot'Geokig). SUN Y Potsdam., Potsdam. NY 13676-2294. USA. Phone: 3115 267 2295; tele!:; 315 267 3170; e-mail: kirchgwt@potsdam.edu)  
 27-31 July 1997  
**OSTROCOBA** (13th International Symposium). Greenwich. UK. ÖSD "97. Sctuiol of Eanh Sciences, University cif GrCeowich. Meclwai: Towns Cainpus. Quilham Murititnc. Kent ME4 4AW.UK.  
 K-matl: iso97@grecnwith.at:Mk I  
 3Ü July-9 August 1997  
**CELEBRATION OF THE BICENTENARY OF CHARLES LYELL AND JAMES MUTTON.** LorucMi and Edinburgh\* UK. IP iacbsim. 8G S. Keywurth. NciTinghau NC115(fCi,, Phone: 0115 936 3100: idelax: » I > 9Vi 321()0)  
 28July-1 August 1997  
**GEOSCIENCE EDUCATION** 12nd Imernational Conference), H i la. Hawaii. (Or l-rank Wait Ireton. GeoSci Bd II Local ArrangementCoir-dinalor. American Geophysical Union. XKKI Florida Avenue. NW. Washington DC 200CW. USA. E-mail: fireumCurkoKiiHis.agu.org)  
 28 July-2 August 199<  
 • THE UPPER PERMIAN STRATOTYPES OF THE VOLGA REGION. Kazan. Russia. (Dr Natalia K. Esaulova. Kazanin Stale University. IH Krctnlvcivskaya- sir. Ika/an 420KB,. Tataro, Russia. Phone: (7) B43 2315 425; telefax: (7) H43 2364 7W|

## August

- August 1997  
**ECONOMIC SVPERACCUMUÍA TIONS OF META'S IN THE LITHOSPHERE** «3rd Annual Meeting of l'GCP Project 354). Puerto Ordaz, Venezuela. Pnitvisor P Rongfti. Institute of Mineral Deposits, Chinese Academy of Geological Scieinces., But'wanzhung Rd, Beijing KMW37. China, Telefax: 86 10 6Ä3 1(>94)  
 August .1997  
**GRANITES AND ASSOCIA TED MINERALIZATIONS** (2nd International Symposium). Salvador.. Brazil. (SGM-2nd ISOAM. General ScrcrturKU, Av. 3. 39». Puttaforma IV, CAB 41746->),. Salvador, Bahia. Brazil. Telefax: 5571 231 5655)

- 3-10 August 1997  
 • **FIFTEENTH BRAZILIAN CONGRESS OF PAIAEONTOLOGY.** Km Claro. Brazil. {Reinuldo Bertint. Department of Sedimentary Geology. Instituto of Cieosck'nce/UNCSP Rio Claro-SP. 135i>6~MI Brazil PtKne: 019 534 0522. ext. 234; teleru: 019 534 0327; e-matl: bertin>6ge«4K)l.,uespt.aosp.br)  
 4-8 August 1W7  
 • **VJCHILEAN GFAHJOGICAL CONGRESS,** Antu-lag.asta, Chiite. (Coniitje Oing.anizudör. VIII Congres Geok >ici > Chile no. Delpurta.menio de Ciocias Cleologicas. Uni versidad Culotica del Nurte. Antofagisus. AV. Angamos OnlO.CuHila 1280, Chile. Phoie: +56-55241148 {205/368>: telefax: 06-55-248198; e mai I: dge» tog i # «>conn pa x\*ecu n. uc n. c l/ 4-8 August 1997  
**SEG/EAGE ISTANBUL "97 INTERNATIONAL GEOPHYSICAL CONFERENCE AND EXPOSITION.** Istanbul. Turkey.(SEG, PO BOX 702740, Tulsa. Oklahoma 74170, USA)  
 6-8 August, S 997  
 • **IX PERUVIAN •GEOLOGICAL CONGRESS.** lima., Peru. (Cormitc Organizadoir del IX Congresu Peruano tie Geulogie, C/o Sociedad Geologien del Peru. Arnaldo Manjue/. 2227,, Lima IS., Peni. Phone: +511-4633947;, telefax: +511-2612362)  
 III -13 August 1997  
 • **RESEARCH AND EXPLORATION— WHERE DO THEY MEET?** «4th Biennial Meeting of i he Society Applied m Mineral Deposits) (Congress Office/SGA Meeting, 1997, University of Turku, Lemminkatsenleau i 8-1 HB. FIN-20520 Turku. Finland. Phoiae: + 358-21-333 634.2; telefax: +358-2 S-333 6410. e-mail:  
 17-21 August 1997  
**PALEOFRAMS '97.** Bellingham. Washington. USA, (Charles A Ross. Department of Geology, Western Washington University. Beling.ha.ra WA 98225-9080. USA. Phone: 360650 3634; telefax: 360 650 3148: e-mail: rt is&jrp@henson.cc.wwu.edu)  
 18-29 August 1997  
**INTERNATIONAL ASSOCIATION OF SEISMOLOGY AND PHYSICS OF THE EARTH'S INTERIOR.** (29th General Assembly). Thessaioniki. Greece.. (29th IASPEI general assembly geophysical laboratory. University. GR-54(i>6, Thessadoniki. Greece. Phone: 30/31 99\* 528; e-muih iaspei @atypxt.T.auth.gr)  
 19-20 August 1997  
**MINERAL EQUILIBRIA AND DATA BASES** {International Meeting). Helsinki. Finland. (Pentti HöUtä. Geulugical Survey nf Finland. SF-021SO Espm.. Finland. Phone: 338 0 469323 S 2; telefax: ,358 1) 4622.05...  
 2K Augus-3 September 1997  
**GEOMORPHOLOGY** (4üi Internationalo  
 Oincrence of Iniemational Association of Géoraorphologists). Bologna. Italy. (Planning Congress, s r 1 Vin Crociali 2,1-4013« Bologna., Italy D

# 1998

2<sup>nd</sup> September-S tktolvr 1997  
**M TETHYANAND BOREAL CRETACEOUS**  
 (Annual Asseinbl> of KK.T Project M\*2).  
 Szarj LC'IKL Ilis> Taira Mountains., Slovakia.  
 f Mascha Tiennrs.NCIK Sabor<lon\ uf  
 Palaehohituiii) and ('ulvimalc^y. Kudajesilaun  
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 M. Tiem.CNseu(\*N\*ev. hiol.ruu. ni )

M) September- 6 October IW  
**CONCEPTS AND MODELS FOR**  
*SUSTAIN A BLE WA TER RESOURCES*  
*MANAGEMENT i FR> KNI> '97 Conference*  
*on. Regional Hydrokigiy.). fwurjsta.*  
*(Dr M Brilly. FCIG Hydraulics Division.*  
*Hajdrihova 2%,. 61 00 Ľ.juMjana. Slovenia.*  
*Phone: (1386) 61 1254 333; telefax: (3851) 61*  
*219 >97: e-mail: imija.brHlyG\*unl-jj.sil*

30 Septcmber-5 (cuuher IM97  
**MAIN CHANGES IS THE MARINE AND**  
*TERRESTRIAL A TLANTIC .REALM*  
*DURING THE NEogene* (2ml Regional  
 Congress), Salamanca. Spain.. ( Departmento  
 de Geutugia (Pulaeontologia. Facuiaad de  
 Ciencias. Universutadde Salamanca. 37008  
 Salamanca, Spain., Phone: 34 23 294497;  
 telefax: 34 23 394514: e-mail:  
 Ovis@tgig.y.usa.es/A nsie!! # g g u. usa lies.)

## October

5-14 October IW7  
**ENVIRONMENT\* L GEOCHEMISTR Y** (4th  
 Internatiu'mal Syinpu'iumI.. Vail.. Cok\*nini).  
 USA. (R C SexeisoiI t>r I. I' Ckiugli. US  
 Geokigical Survey. DIX'. II> 251 Ut>. MS  
 973, Deiner l'nlii;idki »II.22>.. iSA.. "lelelkx:  
 (1)303 236 32MM

6-10 October |W7  
**MATHEMATICAL METHODS IN GEOLOGY**  
 I Pan of i he Mining Pfibca» Syinp\*^um).  
 Prague. C/cch Republic.  
 «Vneniec. KiyhniCum 17, tOOOOPraha  
 10-Stra\$nk\*. C/ech Kepuhlit. Phmie: 422  
 7811801 : lek-fix: 42316 231,69\*

6-11: October IW  
**THE BALTIC** ([nicnuitnnal 5th M;ifine  
 Geological Conference], Vilnius, Lithuania.  
 iPrfessor Algi manias Cingeliv Lithuanian  
 Institute of Geology, I.I" 26IKI Vilnius  
 LMianiu. Phuiw"+37d 2 23651.U: telefax:  
 +370 2 2364IW;  
 e-mail: .griieliis«.gemlojiv.viiav.IO

. 12-16 October IW7  
**TECHNOLOG Y AND GLOBALISA TION:**  
*LEADING THE .PETROLEUMINDUSTRY*  
*INTO THE 21ST CENTURY.* 115th World  
 Petroleum Congressl. Beijing. China.. ( Organ-  
 ising Committee, c& China National Peiro-  
 leum Corporifiiin. PO Box 766, Liu PU Kaung  
 Beijing 100724. China)

20-22 October IW  
**IMPROVED OIL RECOVERY** (\*th Kunqwean  
 Symposium i. The Hague. The Netherlands\*.  
 riOR "97. liAGli. PCHiox 2W. Mm AC i  
 Zelst. The Netlierbuulst

20-23 October SW7  
**GEOLOGICAL SO'CLETY OF AMERICA**  
*ANNUAL MEETING.*, Denver. ColurutJo.  
 USA. (G.SA Meetings Department. PO Box  
 9140,, Boulder, CO 80301, USA. Flrnne: S00  
 472 K>&

2ti- 29 (October IM97  
**PETROLEUM GEOLOGY OF NORTH' WEST**  
*EUROPE* (5th Conference und Exhibition).  
 London, UK,, (CASH,, 4 Cavendish Square.  
 London, W1M 0BX. UK.. Phone 44/171 4\*  
 ): teefux: 44/171 629 3233)

## November

2...7 November IW7  
**THE NEXT MeÈENSWN (SKO**  
 Internatioaat Exposiäon and 67th. Annual  
 Meetting. Dallas.. USA. <Lynne  
 ftleston/Mike McCormack, Technical  
 Pre>grüti Co-Chairmen. SEG IW7  
 International ExposUin and: 67th Annual  
 Meeting. TO Bx 7112740. Tulsa, OK. 74170-  
 274(1. USA)

I-n November 1997

- 1 **ORDERING THE FOSSIL RECORD—**  
**CHALLENGES IN STRATIGRAPHY AND**  
**PALEONTOLOGY.** (Cor Drooger  
 symposium), University of Utrecht,, The  
 Netherlands.. (Auk Pouw., Institute of Earth  
 Sciences. Utrecht University, Budapesttan 4.  
 3584 CD Utrecht. The Netherlands. Phone:  
 31-(0) 30-2535117; telefax: 31-(0) 30-  
 2535117; e-mail: apouw@omega.earth.aiu.nl)

I...13 November 1997

- 2 **SECOND NEPAL GEOLOGICAL**  
**CONGRESS.**, Katmandu,, Nepal. (Dr B N  
 Lfpreti. 'President and Convenor. Nepal  
 Gexihigic Society.. PO.Box. 2.31., Kuthinandu.  
 NeKl. Phone: 977-1-416386, telefax: 977-1  
 414HD4!

17-19 November 1997

**APPLIED GEOLOGIC REMOTE SENSING,**  
*i 12th International Conference and*  
*Workshop.* Denver, Colorado., USA, fRuhens  
 Rogers., ERIM. Box 134001. Aon; Arbor, MI  
 4K1/3 4001 USA. Phone: <1)313 994. 1 lt\*k  
 telefax: CI).313 994 51:23: e-mail:  
 raader C\*erim.org)

## December

4-12 December 1997

- 3 **JURASSIOCRETACEOUS CARBONATE**  
**PLATFORM—BASIN SYSTEMS—**  
**MIDDLE EAST MODELS.** Al Ain, United  
 Arab Emirates.. tSnéy Tarpley, SEP.M. 1731H.  
 7list Street.Tulsa, OK 74136-5It». USA.  
 Phwnt: 918 493-3361 ext..22; telefax: 918  
 493-2CW3)

II -14 Dcccinher 1997

- 4 **ALPINE EVOLUTION OF THE**  
*WESTERN CARPATHIANS AND*  
*RELATED AREAS,* Bratislava., Slovakia,  
 IJiusef Hâk. Slovak Geological Society.  
 Mlviitski< dloI., 817 04 Bratislava. Plume:  
 (IW427) 37 05 445; tcliefux: (00427) 37 19 4:<  
 e-mail: hok@gds.saneLsk)

**CANAMAN INSTITUTE OF MINING,**  
*METALLURGY AND PETROLEUM i* IKKh  
 annual \*eeneral meeting). Quebec. Canada.  
 I John i «yik, Meetings Manager. Canadian  
 Fnstiitic of Mining and Metallurgy, S Place  
 Alexis Nibim, 12 IÜ-.M00 tlc Maiscmneuve  
 thMikx-afd West, Montreal.. Quebec H3S 3Bw,  
 Canada. Phone: C54> 939-2710; tetelax:

## January

2K • .HI January 1998  
**EXPLORATION METHODS 'f; PATHWAYS**  
*TO DISCOVERY* (international Meeting  
 foUowing annual Cordilleron Roundup).  
 Vancouver. Canada, (BC and Yukon Chamber  
 iif Mines. Attn. Technical Chair, 840 West  
 Hastings St., Vancouver. British Columbia..  
 Canada V6C 1CK. Telefax.: 604 6 « S 2363)

## April

13 -I? April 1998  
**15TH INTERNATIONAL SEDIMENTOLOGI-**  
*CAL CONGRESS.* Alicante. Spain. (15th  
 Inicnattunal Sedimentuigical CiMipcss.  
 .Depanaiierto de Ciencias tic tu. Tierra y Mediti-  
 Anibicn. Fa.cultudl de Ciencias., Cu,iiipus de  
 de Sam Vicente de Raspeig, Universidad de  
 Alicante. Apard99, 030W) Alicante. Spaiir  
 Plume: .34 65\*13552; !lelef1\*x:34é59\*3f\*52;,  
 c-citai xtilla CPvin.cpcl.uu.es/j

II 3-17 April IW8

**KIMBERUTES** «Sti. Iniciatiimal ConferenceI,  
 Cape Town, South Africa, (J J Gurney. 71 K.C.  
 Department of Geological Sciences. I Diver-  
 sity of Cape Town, Private Bag. Rondebosch  
 7700, South. Africa. Phone: 27 21 531 3162;  
 telefax: 27 21 650 3783;:  
 e-mail: 71KC@Gf-OLOGY.UCT.ACZA  
 URL: hnp^www.uctuic.zn/depLs/geulsci/71KC7

14-18 April 1998  

- 5 **GEOSCIENCE '9H**, Kcele Univenùty, UK.  
 (The Conference L>enartment, The Geologicul  
 Socicity, B'urrlington flou.se. Piccadilly,  
 London WIV OJU. UK. Phone: 0.171 434  
 9944; telefax: 0171 43\*). »^75:  
 e-mail : confer geoboc.cit> -.cupe.co.uk)

19-23 April IW8

**COMPUTER APPUC'A TIONS IN THE MIN-**  
*ERALS INDUSTRY—APCOM* \*9H 12th  
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 (Conference Office, InsitutHui uf Ming and  
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