CURRICULUM VITAE

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SUMMARY

Exploration Research Geologist and Geoscience Educator with nineteen years industry experience applying unconventional integrated field and laboratory approaches (completing over a hundred worldwide minerals and petroleum exploration and production projects) and five years University teaching experience. Established a niche for hard rock petrology and geochronology at a major oil company research lab. World-class expert in tectonics, regional structure, field geology, basin analysis, hard rock petrology, volcanology, and geochronology with 24 months field expeditions in 15 USA states and 20 countries worldwide. Skilled in project planning and management, multidisciplinary team building, mentoring, networking, and oral and written communication. Princeton University Ph.D. in Geology (1982) and 13 month fully-paid ARCO Research Sabbatical at Cambridge University (1996-7). Author or co-author of one textbook, over 25 journal papers, 50 internal company reports, and 100 conference and seminar presentations. Academic advisor to eleven M.S. or Ph.D. geology students at worldwide Universities. Currently teaching several of six Geoscience courses in an academic environment, and formerly taught numerous in-house short courses and workshops, presented hundreds of lectures and seminars, and taught Industry professionals through one-on-one research and technical services project interactions.

EDUCATION

1982 Ph.D. *Geology, Princeton University.* Dissertation: Petrogenetic aspects of the alkali basaltic lavas and included megacrysts and nodules from the Lunar Crater Volcanic Field, Nevada, USA.

1979 M.A. *Geology, Princeton University,* Princeton, New Jersey. Proposition: Importance of accessory apatite in the rare earth element modeling of magma genesis.

1977 B.S*. Geology (cum laude), University of Dayton,* Dayton, Ohio.

EMPLOYMENT HISTORY

Aug, 2000-present, Adjunct Professor, Faculty Associate, & Senior Lecturer II, Dept. Geosciences, Univ. Texas at Dallas, Courses Taught: GEOS1303 Physical Geology, ISNS4359 Earthquakes & Volcanoes, GEOS3310 Environmental Geology, ISNS3367 Oceans, GEOS 3101 Diamonds; GEOS 3101 Geology of Wine; ***Adjunct Assistant Professor,*** Department of Geological Sciences, Southern Methodist University, Dallas, TX (Course taught: GEOL1313 Earthquakes & Volcanoes, and several years contract geothermal research), ***Geological Consultant*** to the Oil & Gas and Minerals Industries and Academic Institutions.

***Aug, 1997-Aug, 2000: Senior Principal Geologist**, ARCO International Oil & Gas Co.*, Exploration Technology and Operations Services, Geological Technology, Plano, TX. *Major thrusts*: Applications of field geology, igneous petrology, volcanology, geochronology, heat flow modeling, hard-rock petrology, mantle plume magmatism, 3D seismic facies interpretation of basaltic intrusives and extrusives, and geochemistry to exploration, regional tectonics, reservoir description, thermal history, and basin analysis in worldwide exploration groups. Second half, 1999: Knowledge Management and Facility closure team member for planning smooth transition for BPA merger; lead editor for *ARCO Plano 1967-1999- Legacy Yearbook.*

***June, 1996-July, 1997: Research Sabbatical**, 13 Month temporary foreign assignment with ARCO (full-pay), Visiting Scholar at Bullard Labs, Department of Earth Sciences, Cambridge University, UK* performing research on Magmatism and Basin Tectonic Evolution in NW Europe and SE Asia; collaboration with Nicky White, et al.; advisor to Ph.D. Student Paul Wheeler, on SE Asian Basin Evolution thesis activities.

***1988-1996: Senior Principal Research Geologist** or **Principal Geologist** ARCO Exploration and Production Technology Co., & ARCO Oil and Gas Co.*, Exploration Research & Technical Services, Plano, TX, Petroleum Systems and Structural Geology Research Group (1994-1998); Migration & Basin Evolution Group (1991-1993); Tectonics and Basin Analysis Group (1988-1991). *Major thrusts:* Applications of igneous petrology, volcanology, geochronology, hard rock petrology, and geochemistry to regional tectonics, reservoir description, thermal history, and basin analysis in Alaska, Porcupine Basin, West of Britain Basins, Faeroe-Shetland Basin, western USA, New Zealand, Indonesia, Vietnam, Myanmar, Malaysia, East Greenland, NW Europe, Turkey, the Middle East, N & W Africa.

***1985-1987: Senior Research Geologist,** ARCO Exploration and Technology Co.*, Plano, TX, Tectonics and Basin Analysis Group, Exploration Research. *Major thrusts*: Technical Coordinator of the Southern Alaska Regional Study; petrogenesis and tectonic implications of Cretaceous magmatism in Southern Alaska; Southern Alaska basin analysis.

***1981-1984: Senior Research Geologist**, ARCO Oil and Gas Co.*, Plano, TX, Minerals Research Group, Exploration Research. *Major thrusts:* Primary processes involved with ore genesis; Diamond exploration research on the petrology of lamproites and kimberlites; Petrogenesis of tin granites, Seward Peninsula, Alaska; Geochemistry of gold in epithermal systems; Fluid inclusion microthermometry.

***Fall 1978-Fall 1981: Research Assistant**, Geological Sciences, Princeton University.* Field and lab work on NSF grant EAR 78-13685, Petrogenetic implications of fluid and glass inclusions in ultramafic xenoliths and megacrysts in alkali basalts from the Lunar Crater Volcanic Field, Nevada (L.S. Hollister & F.J. Spera, co-principal investigators); (NSF grant for thesis activities).

***Spring 1980: Teaching Assistant**, Geological Sciences, Princeton University*, Igneous and Metamorphic Petrology.

***Summer 1978: Research Assistant**, University of Dayton Research Institute*, Lab work on US Air Force Avionics lab Project F33615-78-C-1417, "Surface studies of the Medicus cathode" involving surface techniques such as ESCA & Auger spectroscopy.

***May 1978-December 1978: Research Assistant**, Geological Sciences, Princeton University,* Field and lab work on NSF Grant EAR 78-00340, Aspects of magma transport: experiments, physical models, and field studies (F.J. Spera, principal investigator).

***Spring 1978: Teaching Assistant**, Geological Sciences, Princeton University*, Historical Geology.

***August 1976-May 1977, Research Assistant**, Geology Department, University of Dayton*, US Dept. Interior project B-065-OHIO, "Fate of trace elements in sewage sludge amended soils" involving atomic absorption spectroscopy and zonal centrifugation.

***Summer 1975, Field Crew member**, Lubbock Lake Project, Texas Tech University Museum*, Excavation at a Paleo-Indian archeology site.

SCIENTIFIC AREAS OF EXPERTISE

Field geology and regional tectonics of Alaska, Western USA, Australia, New Zealand, Indonesia, Indochina, Western Europe and the Middle East; Volcanology, petrology, and geochemistry of crystalline and clastic rocks; fission track and other geochronology techniques; heat flow, thermal history, and basin analysis; trace element and isotope geochemistry; provenance analysis of detrital heavy minerals, thermodynamics of fluids; petrogenesis of kimberlites, lamproites, lamprophyres, diamonds and alkaline magmas; and the application of advanced analytical data relevant to the above disciplines.

ARCO CONTRIBUTIONS

Regional Tectonics, Basin Analysis, Petroleum Systems, 1985-2000: Geologic Team player, Interpretor, & Integrator - Successfully integrated magmatic rock, geochronology, and volcanology data into ARCO's worldwide petroleum exploration portfolio, and basin analysis, tectonics, and thermal history research programs. Demonstrated applications of volcanology and geochronology to petroleum exploration and made them integral aspects of petroleum systems studies at ARCO. Extensive Alaska field-based and laboratory studies in Cook Inlet, Gulf of Alaska, North Slope, Brooks Range, Western, Eastern, and Central Alaska. Geochronologic contributions to Mesozoic Cook Inlet Study, Cook Inlet Tertiary Non Marine Basin study, North Alaska Regional Study, Barrow Arch Study, South Alaska Regional Study, West of Britian/Rockall, Algeria, Eastern Pontides & Black Sea, Turkey, Taranaki Basin New Zealand Study, Sunda Shield, Vietnam, Philippine, Malaysia, Myanmar, Irian Jaya, and Kalosi Block, Indonesia Studies. Conceived and initiated ARCO fission track and geochronology laboratory. Technical coordinator of the 1985-1987 multidisciplinary South Alaska Regional Study and many other integrated teams.

Minerals Research 1981-1985: Geologic Team player & Integrator-Successfully integrated magmatic rocks, geochronology, and volcanology to ARCO's worldwide minerals exploration and tectonics reconstruction programs. Recognized world expert in lamproites and diamonds; coauthor of recent textbook, *Petrology of Lamproites* (with Roger Mitchell). Technical coordinator for 1983-85 Minerals research at ARCO Plano on behalf of Anaconda, including the Kugarok Seward Peninsula, AK Sn-Ta prospect, Summitville, CO epithermal Au prospect, and other Mo-Cu porphyry systems in NV & CO. Diamond exploration workshop organizer (1984), lecturer, and field trip leader.

GRANTS and AWARDS

1996-7 Visiting Scholar, Department of Earth Sciences, University of Cambridge, UK.

1996 Exceptional Achievement Alumni Award, University of Dayton.

1992 Award of Excellence, Best Teamwork: Pt. McIntyre Field Reservoir Quality Study, (with S. Bloch, J. McGowen, J. Houlle, C. Vavra, et al.) Exploration Research and Technical Services, ARCO Exploration and Production Technology

1991 Award of Excellence, Tertiary Cook Inlet Non-marine Basin study, (with R. Curry, J. McGowen, et al.), ARCO Exploration and Production Technology

1991 Outstanding Poster Award, ARCO Exploration Technology Conference, (with K. Meisling et al.), Barrow Arch Study.

1988 Vice President's Technical Achievement Award, New Zealand Taranaki Basin Study, ARCO Oil and Gas Co.

1986 Principal Investigator, *NSF Grant* EAR 86-11869 to support US participants' travel to Research Workshop: Continental and oceanic lithosphere: similarities and differences, London, England.

1984 Exceptional Achievement Award, Lamproite-kimberlite-diamond exploration research, ARCO Oil and Gas Co.

1978 Sigma Xi Grant in Aid of Research, Alkali basalts and included megacrysts and xenoliths from the Lunar Crater Volcanic Field, Nevada; supported thesis field research.

1978 Geological Society of America Penrose Grant 2301-78, Alkali basalts and included megacrysts and xenoliths from the Lunar Crater Volcanic Field, Nevada; supported thesis field research.

1978 Co-author of NSF grant EAR 78-13685, Petrogenetic implications of fluid and glass inclusions in ultramafic

xenoliths and megacrysts in alkali basalts from the Lunar Crater Volcanic Field, Nevada (L.S. Hollister & F.J. Spera, co-principal investigators), Princeton University.

COMMITTEES, CONFERENCES and WORKSHOPS

1997 Joint Vietnam Geological Survey-ARCO project *on SE Asian Collisional Granite magmatism & tectonics; Field trip leader of Cornwall Collisional Granites and Petroleum systems.*

1990-1992 Working Group member, Committees on Foiditic and leucitic rocks and Lamprophyric, lamproitic, and kimberlitic rocks, IUGS Subcommission on the classification of igneous rocks (M. J. LeBas and A.R. Woolery, chairmen).

1987 Co-Organizer, Research Workshop, Royal Holloway and Bedford New College, University of London, England, Continental vs oceanic lithosphere: similarities and differences, one week workshop, convened session on lamproites.

1984 Organizer, Diamond Exploration Workshop, ARCO Oil and Gas, Plano TX, one week of lectures, labs and field trips on diamonds, kimberlites and lamproites.

THESIS COMMITTEES

Boyan Vakarelov, *Univ. Texas, Dallas* (PhD in progress, expected completion 2006) Integrating Allostratigraphy and Geochronology to resolve rates of depositional and tectonic processes in a distal foreland basin during the Cretaceous "Greenhouse", Frontier Formation, Powder River Basin, Wyoming

Randy Griffin, *Univ. Texas, Dallas* (PhD in progress, expected completion 2006) Petrogenesis and age of the Cretaceous Balcones Igneous Province, Central TX.

Eric Zimmerman, *Louisiana State Univ., Baton Rouge* (M.S., 2001) NE Turkey sediment provenance through novel heavy mineral analyses.

Dennis Dunn, *Univ. Texas, Austin* (Ph.D. 2003) Upper mantle & crustal xenoliths from Prairie Creek area lamproites, Arkansas.

Paul Wheeler, *University of Cambridge* (Ph.D., 2000), SE Asian basin evolution.

Anne Replumaz, *IPG, Univ. Paris VI*, Paris (Ph.D., 1999) Cenozoic Tectonic reconstruction of SE Asia.

Jennifer Winkler, *Univ. Texas, Dallas* (M.S., 1996) Fission track thermochronology of the Witchita Mtns, OK.

Linda Davis, *Univ. Texas, Austin* (Ph.D., 1993) Petrology of Two Buttes Ultrapotassic intrusives, CO.

Tracy Paul, *Arizona State University* (Ph.D., 1993) TEM imaging if Fission Tracks in apatite.

Paul O'Sullivan, *Univ. Alaska* (M.S., 1988) Fission track thermochronology of the NE Brooks Range, Alaska.

Sarah Kinsel, *Southern Methodist Univ.*, Dallas (M.S., 1987) Petrology of Caledonian intrusives, NW England.

PROFESSIONAL SOCIETY MEMBERSHIPS

Geological Society of America (1976), Mineralogical Society of America (1978), American Geophysical Union (1978), Mineralogical Society of Canada (1978), Geochemical Society (1980), International Association of Volcanology (1981), Alaska Geological Society (1987), New Zealand Geological Society (1989), Geological Society of London (1994), Geological Society of Malaysia (1997), SEAPEX (1998).

INTERNAL ARCO PUBLICATIONS

1. J.C. Reid & S.C. Bergman, 1982. Petrology, geochemistry and metallogeny of the Kougarok prospect: a geochemically evolved tin-bearing granitic system, Seward Peninsula, Alaska (A preliminary report). ARCO Oil & Gas Co., Research & Development Dept., Research Report RR 82-22.

2. S.C. Bergman, 1982. Preliminary report on the mode of occurrence of gold in the Summitville Gold Prospect, Colorado. ARCO Oil & Gas Co., Research & Development Dept., Research Report RR 82-60.

3. S.C. Bergman, 1983. Geochemistry and mineralogy of lamproites: Importance in diamond exploration. ARCO Oil

& Gas Co., Exploration & Production Research, Research Report RR 83-39.

4. S.C. Bergman, 1983. Geochemistry of the Saleo volcaniclastic breccia, S Bekanon, Cedntral Kalimantan: a calc-alkaline breccia of andesite to dacite composition. ARCO Oil & Gas Co., Exploration & Production Research, Report TSR 83-33.

5. S.C. Bergman, T. Hudson, and D. Doherty, 1986. Tectonic implications of Late Cretaceous to Early Tertiary (45-80 Ma) magmatism in southern Alaska. ARCO Oil & Gas Co., Exploration & Production Research, Report RR 86-93C.

6. K. Meisling, M. Gardner, G. Cushing, S.C. Bergman, 1986. Kinematic reconstruction of southern Alaska at 75 Ma. ARCO Oil & Gas Co., Exploration & Production Research, Report RR 86-93G.

7. R. Curry & S.C. Bergman, 1986. Chronostratigraphic exploration summary chart for selected areas in Alaska. ARCO Oil & Gas Co., Exploration & Production Research, Report RR 86-104.

8. S.C. Bergman, 1986. Compilation of Late Cretaceous to Mid Eocene (50-75 Ma) K-Ar agges of igneous rocks in southern and central Alaska. ARCO Oil & Gas Co., Exploration & Production Research, Report TSR 86-35.

9. S.C. Bergman, 1986. Major and trace element geochemical data files of rocks sampled during the 1985 SARS field season. ARCO Oil & Gas Co., Exploration & Production Research, Report TSR 86-34.

10. S.C. Bergman, 1986. Compilation of radiogenic isotope (Sr-Nd-Pb) and K-Ar age data for samples collected during the 1985 SARS field season. ARCO Oil & Gas Co., Exploration & Production Research, Report TSR 86-41.

11. S.C. Bergman and D. Doherty, 1986. Map of 50-75 Ma volcanic and plutonic rocks in southern Alaska, ARCO Oil & Gas Co., Exploration & Production Research, Report RMCS 86-49.

12. S.C. Bergman, and D. Doherty, 1986. Map of 75-130 Ma volcanic and plutonic rocks in southern Alaska, ARCO Oil & Gas Co., Exploration & Production Research, Report RMCS 86-49.

13. S.C. Bergman, Doherty, D.J., & McGowen, J., 1988. Tertiary Igneous Rocks of Southern Alaska: Implications for the Chronostratigraphic, Tectonic, and Depositional Framework of the Tertiary South Alaska Non-marine Forearc Basin, ARCO Oil & Gas Co., Exploration & Production Research, Report RR 88-49D.

14. P. Thompson, B. Robinson, M. Gresko, S.C. Bergman, 1988. Exploration Summary chart and regional cross sections, Taranaki Basin, New Zealand. ARCO Oil & Gas Co., Exploration & Production Research, Report TRR 88-56.

15. S.C. Bergman and S. Kelley, 1988. Age and stratigraphic importance of Late Cretaceous to Tertiary bentonite and tuff units, North Slope, Alaska, In Meisling (ed.), NARS guide to products Arco Oil and Gas RR-88-0075, section 5.

16. S.C. Bergman, S. Kelley, P. Daggett and J. Dillon, 1988. Apatite and zircon fission track analysis of North Alaska Mesozoic sedimentary and Paleozoic crystalline rocks: insights into the thermal and uplift history of the Brooks Range and North Slope, In Meisling (ed.), NARS guide to products, ARCO Oil & Gas Co., Exploration & Production Research, RR-88-0075, section 24.

17. S.C. Bergman and P. Daggett, 1988. Compilation of radiometric age data and insights into the thermal history of the Brooks Range and North Slope, Alaska, In Meisling (ed.), NARS guide to products, ARCO Oil & Gas Co., Exploration & Production Research, RR-88-0075, section 20.

18. T. Hudson and S.C. Bergman, 1988. Igneous rocks in the DeLong Mountains B-2 Quadrangle, Alaska, ARCO Oil & Gas Co., Exploration & Production Research, TSR 88-14.

19. T. Hudson and S.C. Bergman, 1988. Results of 1987 geologic field studies in the South Central Brooks Range, Alaska, ARCO Oil & Gas Co., Exploration & Production Research, TSR 88-0015.

20. T. Hudson and S.C. Bergman, 1988. Metamorphic and igneous rocks of the Selawik Hills area, Alaska, ARCO Oil & Gas Co., Exploration & Production Research, TSR 88-13.

21. T. Hudson and S.C. Bergman, 1988. Results of 1987 geologic field studies in the Seward Peninsula, Alaska, ARCO Oil & Gas Co., Exploration & Production Research, TSR 88-0016.

22. S.C. Bergman, 1988. Geochronology and petrology of a subaerial tuff bed, Walker Formation, SE San Joaquin Basin, CA: An Oligocene (31 Ma) marker horizon. ARCO Oil & Gas Co., Exploration & Production Research, TSR

89-1.

23. J. Decker, S.C. Bergman, S. Bloch, J. Talbot, M. Kelton, L. Liang, and S. Mehta, 1990. Geochemical and microanalytical data from ferruginous sandstones and ironstones in the Pt. McIntyre #8 well, Alaska. TSR 90-cc.

24. S.C. Bergman and J. Talbot, 1990. Basaltic Rock Geochronology and Petrography, Wells DJH-1 and HLJ-1, Algeria, In J. Howes (ed.) Algeria Final Summary Report, chapter 7, TSR 90-111.

25. S.C. Bergman, C. Atkinson, J. Talbot, T. Gordon, 1990. Nature and reservoir potential of Miocene sedimentary rocks, W North Island, New Zealand: a reconnaissance field and laboratory study. ARCO Oil & Gas Co., Exploration & Production Research, TSR 90-32.

26. S.C. Bergman, Kelley, S., Talbot, J., Chang, Y.-M., Corrigan, J. D., Walsh, D. B., and Decker, J., 1991, Barrow Arch Study: Apatite fission track thermal history of "Barrow Arch" and north Alaska subsurface rocks, ARCO Oil and Gas Co., Technical Service Report TSR 91-37E.

27. S.C. Bergman, Corrigan, J.D., & Maden, N., 1992. Fission track thermal history of the L/16-4, L/17-3, Q/4-7, and Q/2c-2 wells, Dutch North Sea, ARCO Exploration and Production Technology report TSR 92-29.

28. S.C. Bergman, Corrigan, J.D., Kelley, S., Talbot, J, & Wood, M., 1992. Fission track and K-Ar geochronology of the B/17a-4 well, Dutch North Sea, ARCO Exploration and Production Technology report TSR 92-31.

29. S.C. Bergman, Corrigan, J.D., Talbot, J., & Decker, J., 1992. Fission track, Rb-Sr, Nd-Sm, Pb-Pb, and K-Ar geochronology of the Stinson #1Well, East Beaufort Sea, Northern Alaska, ARCO Exploration and Production Technology report TSR 92-53.

30. S.C. Bergman, Corrigan, J.D., and Talbot, J., 1992. Fission track geochronology of the Antares #1Well (OCS-Y-0280-#1), Beaufort Sea, Northern Alaska, ARCO Exploration and Production Technology report TSR 92-67.

31. S.C. Bergman & Corrigan, J.D., 1992. Fission track geochronology of the Fireweed #1Well (OCS-Y-0267), Central Beaufort Sea, Northern Alaska, ARCO Exploration and Production Technology report TSR 92-68.

32. S.C. Bergman and J Corrigan, 1992. Cretaceous and Tertiary basaltic magmatism in Syria: thermal history and tectonic framework implications. ARCO Exploration and Production Technology report TSR 92-33.

33. S.C. Bergman, 1991. Tectonic framework, In Cucci. M.A., 10 others, 1991. The East Sunda Shield Margin Regional Study. ARCO Oil and Gas Co., TSM 91-0032, 34 p, maps, plates (2 volumes), Plano, TX.

34. S.C. Bergman, Talbot, J., and Garrard, R.A., 1992. Miocene Magmatism and Thermal History of the Kalosi Block and Adjacent SW Sulawesi: Evidence of Miocene Continental Collision, ARCO Exploration and Production Technology Report TSR92-0038.

35. S.C. Bergman, J. Talbot, J. Corrigan, & G. Van Kooten, 1993. Fission track, Rb-Sr, and K-Ar geochronology of Late Proterozoic to Late Mesozoic sandstones in the Kandik Basin area, Alaska and Yukon Territories, Canada, ARCO Exploration and Production Technology Report, TSR 93-0003.

36. S.C. Bergman, J. Talbot, & D. Coffield, 1993. Miocene Magmatic and Thermal History of the Kalosi PSC, SW Sulawesi: Results of 1992 Field and Laboratory Studies, ARCO Exploration and Production Technology Report, TSR 93-0024.

37. Bergman, S.C., Corrigan, J., Landis, C., Decker, J., Greenberg, M., Cerveny, K., Eggers, D., and Russell, L., 1994. North Alaska maturation framework study Phase 1: Thermal gradients, fission track, vitrinite reflectance, well log sonic velocity, and check shot/VSP velocity data files and erosion estimation status report. AEPT TSR 94-0013.

38. Bergman, S.C., Corrigan, J., & Mount, V., 1997. Apatite fission track thermal history of Proterozoic granitic basement rocks from Oman: A reconnaissance study, TSR97-0048.

39. Bergman, S.C., and Archer, S., 1998. Petrology, geochemistry and geochronology of basaltic intrusive and extrusive rocks from the 164/7-1 well, Tranche 52, NE Rockall Basin, UK., TSR98-0022.

40. Bergman, S.C., Aytuna, S., and Barker, F., 1999. Cenozoic Thermal and Denudation History of the Eastern Pontides and provenance of Eastern Black Sea Basin deposits, NE Turkey: Implications for Hydrocarbon Exploration, TSR99-0099.

41. Bergman, S.C., Aytuna, S., and Barker, F., 1999. Thermal and Denudation History of the Istranca Massif and provenance of Thrace and Western Black Sea Basin deposits: Implications for Hydrocarbon Exploration, TSR99-

0100.

EXTERNAL PUBLICATIONS

BOOKS

1. R.H. Mitchell and S.C. Bergman, 1991. *Petrology of lamproites*, Plenum Press, New York, 471 pp.

REFEREED JOURNAL or BOOK PUBLICATIONS

1. C.J. Ritter, S.C. Bergman, C.R. Cothern and E.E. Zamierowski, 1978. Comparison of sample preparation techniques for atomic absorption analysis of sewage sludge and soil. *Atomic Absorption Newsletter*, 17, 4, 70-2.

2. S.C. Bergman, C.J. Ritter, E.E. Zamierowski, and C.R. Cothern, 1979. The use of zonal centrifugation in delineating trace element distributions in sewage sludges from the Dayton, Ohio area. *Journal of Environmental Quality*, 8, 3, 416-422.

3. F.J. Spera and S.C. Bergman, 1980. Carbon dioxide in igneous petrogenesis I. Aspects of the dissolution of CO2 in silicate liquids. *Contributions to Mineralogy and Petrology*, 74, 55-66.

4. S.C. Bergman, K.A. Foland and F.J. Spera, 1981. On the origin of an amphibole-rich vein in a peridotite inclusion from the Lunar Crater Volcanic Field, Nevada, USA. *Earth and Planetary Science Letters*, 56, 343-361.

5. J.L. Warner, L.D. Ashwal, S.C. Bergman, E.K. Gibson, D.J. Henry, R. Lee Berman, E. Roedder and H.E. Belkin, 1983. Fluid inclusions in stony meteorites. *Journal of Geophysical Research-Proceedings 13th Lunar Science Conference*, Part II, 88 supl. p. A731-35.

6. S.C. Bergman and J. Dubessy, 1983. CO_2-CO fluids in a composite peridotite nodule: Implications for upper mantle oxygen fugacity. *Contributions to Mineralogy and Petrology*, 85, p. 1-13.

7. P.H. Nixon and S.C. Bergman, 1987. Anomalous occurrences of diamonds. *Idiaqua, Industrial Diamonds Quarterly*, 47, 21-27.

8. S.C. Bergman, 1987. Lamproites and other Potassium-rich igneous rocks: a review of their occurrence, mineralogy and geochemistry. *in* J.G. Fitton and B.J.G. Upton (eds.), *Alkaline Igneous Rocks*, Geological Society of London Special Publication 30, p. 103-190.

9. S.C. Bergman, W.S. Turner and L.G. Krol, 1987. A reassessment of the diamondiferous Pamali Breccia, S.E. Kalimantan, Indonesia: Intrusive kimberlite breccia or sedimentary conglomerate? *in* E. Mullen and J.D. Pasteris (eds.), *Mantle Metasomatism and Alkaline Magmatism*, Geological Society of America Special Paper 215, p. 183-196.

10. S.C. Bergman, 1987. Historical Review. *in* P.H. Nixon (ed.), *Mantle Xenoliths*, J. Wiley and Sons, New York, p. 5-9.

11. M. Menzies, R.J. Arculus, M. Best, S.C. Bergman, S. Ehrenberg, A.J. Irving, M. Roden and D. Schulze, 1987. A record of subduction processes and within plate volcanism in lithospheric xenoliths of the SW USA. *in* P.H. Nixon (ed.), *Mantle Xenoliths*, J. Wiley and Sons, New York, p. 59-73.

12. S.C. Bergman, D.P. Dunn, and L.G Krol, 1988. Rock and mineral chemistry of the Linhaisai Minette, Central Kalimantan, Indonesia and the origin of Borneo Diamonds. *Canadian Mineralogist*, 26, p. 23-43.

13. M.C. Gardner, S.C. Bergman, G. Cushing, E. MacKevett, G. Plafker, R. Campbell, C. Dodds, W. McClelland, and P. Mueller, 1988. Pennsylvanian pluton stitching of Wrangellia and the Alexander terrane, Wrangell Mountains, Alaska. *Geology*, 16, p. 967-71.

14. S.C. Bergman, J.P. Talbot, and P.R. Thompson, 1992. The Kora Miocene andesite submarine stratovolcano hydrocarbon reservoir, Taranaki Basin, New Zealand. In *1991 New Zealand Oil Exploration Conference Proc.*, New Zealand Ministry of Commerce, Wellington, v. 1, p. 178-206.

15. P. O'Sullivan, P.F. Green, S.C. Bergman, J. Decker, I.R. Duddy, A.J.G. Gleadow, and D.L. Turner, 1993. Apatite fission track thermal history of Permian to Cenozoic sedimentary rocks in the Northeastern Brooks Range, Alaska. *Amer. Assoc. Petrol. Geol. Bull.*, 77, p. 359-385.

16. D. Q. Coffield, S. C. Bergman, R. A. Garrard, Nusatriyo G., N. M. Robinson, & J. Talbot, 1993. Tectonic and stratigraphic evolution of the Kalosi PSC area, SW Sulawesi: Development of a petroleum system. Proc. Twenty Second Indonesian Petroleum Assoc. Convention Proceedings, October 1993, v. 1, pp. 679-706.

17. V.B. Sisson, R.W. Lovelace, W.B. Maze, S.C. Bergman, 1993. Direct observation of primary fluid inclusion formation, *Geology*, v. 21, p. 751-4.

18. D.D. Lambert, S.B. Shirey, R.W. Carlson, and S.C. Bergman, 1995. Re-Os and Nd-Sm isotope geochemistry of Prairie Creek Lamproites and evolution of the subcontinental mantle lithosphere. *Geology*, v. 23, p. 273-6.

19. S.C. Bergman, D.Q. Coffield, J.Talbot, & R.A. Garrard, 1996. Late Tertiary tectonic and magmatic evolution of western Sulawesi and the Makassar Strait, Indonesia: Evidence for Miocene continent-continent collision *in* R. Hall and D. Blundell (eds.), *Tectonic Evolution of SE Asia*, Geological Society of London Special Publication 106, pp. 391-429.

20. Wooley, A.R., SC. Bergman, A.D. Edgar, M.J. LeBas, R.H. Mitchell, N.M.S. Rock, B.H. Scott Smith, 1996. Classification of lamprophyres, lamproites, kimberlites, and the kalsilitic, melilitic, and leucitic rocks. *Canadian Mineralogist*, v. 34, no. 2, p. 175-186.

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