

REFERENCES

- Agrawal, V. (1984) Geochemistry of the volcanic rocks around Tavidar, district Jalore, Rajasthan. *Ph.D. thesis, Submitted to University of Rajasthan, Jaipur*, pp. 111.
- Bailey, D. K. (1974) Continental rifting and alkaline magmatism. In H. Sorenson (ed.) '*The alkaline rocks*'. John Wiley and Sons, London, pp. 148-159.
- Barberi, F., Borsi, S., Ferrara, G., Marinelli, G. and Varet, J. (1970) Relations between tectonics and magmatology in the northern Danakil Depression (Ethiopia). *Phil. Trans. R. Soc. Lond.*, A 267, 293-311.
- Barth, T. F. W. (1966) Aspects of crystallization of the quartzo-feldspathic plutonic rocks. *Tscheron. Mineral. Petrol. Mitt.*, 11, 209-222.
- Basu, A. R., Renne, P. R., Das Gupta, D. K., Teichmann, F. and Poreda, R. J. (1993) Early and Late Alkali Igneous Pulses and a High-³He Plume Origin for the Deccan Flood Basalts. *Science*, 261, 902-906.
- Berger, G. W. and York, D. (1981) Geothermometry from ⁴⁰Ar/³⁹Ar dating experiment. *Geochem. Cosmochem. Acta.*, 45, 795-811.
- Bevington, P. R. (1969) *Data reduction and error analysis for the physical sciences*. Mc Graw Hill Co. New York.
- Bhusan, S. K. and Sengupta, R. (1979) The Malani project: Geological Survey of India, Western Region, *Annual programme for 1979-80*, pp. 57-66.
- Bhusan, S. K. and Yagi, K. (1981) Malani volcanism of the Proterozoic in the western Rajasthan, India. *IAVCEI Symp., Tokyo*.
- Bhusan, S. K. (1984) Classification of Malani Igneous Suite. Symposium on Three decades of developments in Petrology, Mineralogy and Petrochemistry in India. *Geol. Surv. Ind., sp. pub.*, 12, 199-205.
- Bhusan, S. K. (1985) Malani volcanism in western Rajasthan. *Ind. Jour. Earth Sci.*, 12 (1), 58-71.
- Bhusan, S. K. and Mohanty, M. (1988) Mechanics of intrusion and geochemistry

- of alkaline granites from Siwana, Barmer district, Rajasthan. *Ind. Jour. Earth Sci.*, **15** (2), 103- 115.
- Bhusan, S. K. (1989) Mineral chemistry and petrogenetic aspects of Malani volcanics, Western Rajasthan. *Ind. Miner.*, **43** (3 & 4), 325-338.
- Bhusan, S. K. (1991) Granitoids of Malani igneous complex, western Rajasthan, India. *Jour. Earth Sci.*, **18** (3-4), 184-194.
- Blanford, W. T. (1877) Geological notes on the Great Indian Desert between Sind and Rajputana. *Rec. Geol. Surv. India.*, **10**, 10-21.
- Bose, M. K. (1972) Deccan basalts. *Lithos*, **5**, 133-147.
- Bose, M. K. and DasGupta, D. K. (1973) Petrology of the alkali syenites of the Mundwara magmatic suite, Sirohi, Rajasthan. *India. Geol. Mag.*, **110**, 457-466.
- Bose, M. K. (1980) Alkaline magmatism in the Deccan volcanic province. *Jour. Geol. Soc. India*, **21**, 317-329.
- Bowden, P. (1974) Oversaturated alkaline rocks: granites, pantellerites and commendites. In H. Sorenson (ed.) '*The alkaline rocks*'. John Wiley and Sons, London, pp. 109- 123.
- Bowden, P. and Kinnaird, J. A. (1978) Younger granites of Nigeria - a zinc rich province. *Trans Section B. Inst. Min. Metall.* **87**, 66-69.
- Brereton, N. R. (1970) Corrections for interfering isotopes in the $^{40}\text{Ar}/^{39}\text{Ar}$ dating method. *Earth Planet Sci. Lett.*, **8**, 427-433.
- Brooks, C., Wendt, I. and Herre, W. (1968) A two-error regression treatment and its application to Rb-Sr and initial $^{87}\text{Sr}/^{86}\text{Sr}$ ratios of younger variscan granitic rocks from the Schwarzwald Massif, South-West Germany. *J. Geophys. Res.*, **73**, 6071.
- Brooks, C, Hart, S. R., and Wendt, I. (1972) Realistic use of two-error regression treatments as applied to Rb-Sr data. *Rev. Geophys. and Space Physics*, **10** (2), 551-577.
- Carmichael, D. M. (1963) Crystallisation of feldspar in volcanic acid liquids. *Q. J. Geol. Soc. London*, **119**, 95- 131.
- Chakraborty, M. K. and Bose, M. K. (1978) Theralite-meltigite-carbonatite

- association in Mer ring of Mundwara suite, Sirohi district, Rajasthan. *Jour. Geol. Soc. India*, **19** (10), 454-463.
- Chakraborty, M. K. (1979) On the alkali syenites of Mundwara suite, Sirohi district, Rajasthan. *Proc. Ind. Nat. Sci. Acad.*, **45**, 284-292.
- Chakraborty, M. K. (1984) Petrology of the Mundwara sub-volcanic suite, Sirohi district, Rajasthan. *Proc. Ind. Nat. Sci. Acad.*
- Chandrasekaran, V. and Srivastava, R. K. (1992) Multivariate Statistical Analysis of Polyphase Igneous Rocks of the Malani Igneous Province with Special Reference to Sarnu Dandali Area, Western Rajasthan. *Jour. Geol. Soc. India*, **40**, 217-233.
- Chayes, F. (1960) On correlation between variables of constant sum. *Jour. Geophys. Res.*, **65**, 4185-4193.
- Choudhary, A. K. (1984) Precambrian geochronology of Rajasthan, Western India. *Ph.D. thesis, PRL, Ahmedabad, Submitted to Gujarat University, Ahmedabad, pp. 182.*
- Choudhary, A. K., Gopalan, K. and Sastry, A. (1984) Present status of the geochronology of the Precambrian rocks of Rajasthan. *Tectonophysics*, **105**, 131-140.
- Coulson, A. L. (1933) The Geology of the Sirohi State, Rajputana. *Mem. Geol. Surv. Ind.* **63** (1), 83-94.
- Cox, K. G., Gass, I. G., Mallick, D. I. J. (1970) The peralkaline volcanic suite of Aden and little Aden, South Arabia. *J. Petrol.*, **11**, 433-462.
- Crawford A. R. and Compston, W. (1970). The age of Vindhyan System of Peninsular India. *Quart. Jour. Geol. Soc., Lond.*, **125** (1), 351-372.
- Crawford, A. R. (1975) Rb-Sr age determinations for the Mount Abu granite and related rocks of Gujarat. *Jour. Geol. Soc. India*, **16**, 20-28.
- Dalrymple, G. B. and Lanphere, M. A. (1971) $^{40}\text{Ar}/^{39}\text{Ar}$ technique of K-Ar dating: A comparison with the conventional technique. *Earth Planet. Sci. Lett.*, **12**, 300-308.
- Dalrymple, G. B., Alexander, E. C. Jr., Lanphere, M. A. and Kraker, G. P. (1981) Irradiation of samples for $^{40}\text{Ar}/^{39}\text{Ar}$ dating using the Geological Survey TRIGA

- reactor. *U. S. Geol. Surv., Prof. Paper*, **1176**.
- Das Gupta, D. K. (1974) Mundwara alkalic suite and Deccan volcanicity. *Bull. Indian Geol. Assoc.*, **7**, 137-144.
- Das Gupta, D. K. (1975) On the alkaline gabbroic rocks and syenites from Musala hill, Mer Mundwara, Sirohi district, Rajasthan. *Quart. Jour. Geol. Min. Met. Soc. India*, **47**, 117-124.
- Dasgupta S. K. and Chandra M. (1978) Tectonic element of West Rajasthan shelf and their stratigraphy. *Quart. Jour. Geol. Min. Met. Soc. India*, **50**, 1-16.
- Dashora, R. S. (1981) Geological investigation of Karara fluorspar deposits, district Jalore, Rajasthan. *Ph.D. thesis, Submitted to University of Rajasthan, Jaipur*. pp. **111**.
- Davis, J. C. (1973) *Statistics and data analysis in Geology*. John Wiley and Sons, New York, pp. **550**.
- Dickinson, D. R., Dodson, M. H., Gass, I. G., and Rex, D. C. (1969) Correlation of initial $^{87}\text{Sr}/^{86}\text{Sr}$ with Rb/Sr in some late Tertiary volcanic rocks of south Arabia. *Earth Planet. Sci. Lett.*, **6**, 84-80.
- Faure, G. and Hurley, P. M. (1963) The isotopic composition of strontium in oceanic and continental basalt: Application to the origin of igneous rocks. *J. Petrol.*, **4**, 31-50.
- Faure, G. and Powell, J. C. (1972) In 'Strontium Isotope Geology', Springer - Verlag, Berlin, pp. **28-42**.
- Frank, E. and Stettler, A. (1979) K-Ar and ^{39}Ar - ^{40}Ar systematics of white K-mica from an Alpine metamorphic profile in the Swiss Alps. *Schweiz Mineral. Petrog. Mitt.*, **59**, 375- 394.
- Gast, P. W. (1968) Trace element fractionation and origin of tholeiitic and alkaline magma types. *Geochim. Cosmochim. Acta*, **32**, 1059-1086.
- Gaur, C. M. (1984) Geochemistry of acid volcanics of Manihari, Pali district, Rajasthan. *Ph.D. thesis, Submitted to University of Rajasthan, Jaipur*, pp. **111**.
- Gillespie, A. R., Huneke, J. C., and Wasserburg, G. J. (1982) An assessment of ^{40}Ar - ^{39}Ar dating of incompletely degassed xenoliths. *J. Geophys. Res.*, **87**, 9247-9257.

- Gopalan, K., Macdougall, J. D., Roy, A. B. and Murali, A. V. (1990) Sm-Nd evidence for 3.3 Ga old rocks in Rajasthan, northwestern India. *Precambrian Research*, **48**, 287-297.
- Greenburg, J. K. (1981) Characteristics and origin of Egyptian younger granites. *Summ. Bull. Geol. Soc. Amer.*, **92** (1), 63-67.
- Hanson, G. N., Simmons, K. R. and Bence, A. E. (1975) $^{40}\text{Ar}/^{39}\text{Ar}$ spectrum ages for biotite, hornblende and muscovite in a contact metamorphic zone. *Geochim. Cosmochim. Acta.*, **39**, 1269-1297.
- Harrison, T. M. and Mc Dougall, I. (1981) Excess ^{40}Ar in metamorphic rocks from Broken Hill, New south Wales: Implications for $^{40}\text{Ar}/^{39}\text{Ar}$ age spectra and the thermal history of the region. *Earth Planet. Sci. Lett.*, **55**, 123-149.
- Heier, S. and Adams, J., A. S. (1964) The geochemistry of the alkali metals. *Phys. Chem. Earth*, **5**, 255-380.
- Heron, A. M. (1917) The Geology of North - Eastern Rajputana and Adjacent Districts. *Mem. Geol. Surv. India*, **41**, Pt. I.
- Heron, A. M. (1953) The Geology of Central Rajputana. *Mem. Geol. Surv. India*, **79**, 1-339.
- Jacobson, S., Macleod, W. N. and Black, R. (1958) Ring complexes in the younger granite province of northern Nigeria. *Geol. Soc. London. Mem.* **1**, 72.
- Jager, E., Bhandari, A. K., and Bhanot, V. B. (1971) Rb-Sr age determinations on biotites and W. R. samples from the Mandi and Chor granites, Himachal Pradesh, India. *Eclogae Geol. Helv.*, **64** (3), 521-527.
- Kaneoka I. (1974) Investigation of excess argon in ultramafic rocks from the Kola Peninsula by the $^{40}\text{Ar}/^{39}\text{Ar}$ method. *Earth Planet. Sci. Lett.*, **22**.
- Kennedy, W. Q. (1964) *Univ. Leeds, Inst. African. Geology*, 8th Report, 48-49.
- Kochhar, N. (1984) Malani igneous suite: Hot spot magmatism and cratonization of the northern parts of the Indian shield. *Jour. Geol. Soc. India*, **25** (2), 155-161.
- Kochhar, N., Pande, K., and Gopalan, K. (1985) Rb-Sr age of the Tosham ring complex, Bhiwani, India. *Jour. Geol. Soc. India*, **26**, 216-218.

- Kochhar, N. (1989) High heat producing granites of the Malani igneous suite, northern peninsular India. *Ind. Minerals*, **43**, 339-346.
- Lanphere, M. A., Wasserburg, G. J., Albee, A. L. and Tilton, G. R. (1964) Redistribution of Sr and Rb isotopes during metamorphism, World Beater Complex, Panamint Range, California. *Isotopic and Cosmic Chemistry, North Holland Publishing Company, Amsterdam*.
- Lanphere, M. A. and Dalrymple, G. B. (1971) A test of the $^{40}\text{Ar}/^{39}\text{Ar}$ age spectrum technique on some terrestrial materials. *Earth Planet. Sci. Lett.*, **12**, 359-372.
- Lanphere, M. A. and Dalrymple, G. B. (1976) Identification of excess ^{40}Ar by the $^{40}\text{Ar}/^{39}\text{Ar}$ age spectrum technique. *Earth Planet. Sci. Lett.*, **32**, 141-148.
- Lanphere, M. A. and Dalrymple, G. B. (1977) Reply to comment by E. K. Jessberger. *Earth Planet. Sci. Lett.*, **37**, 169- 172.
- La Touche, T. D. (1902) Geology of Western Rajputana. *Mem. Geol. Surv. India*, **35**, 1-16.
- Le Bas, M. J. (1971) Peralkaline volcanism, crustal swelling and rifting. *Nature*, **230**, 85-86.
- Le Bas, M. J. and Srivastava, R. K. (1989) The mineralogy and geochemistry of the Mundwara carbonatite dykes, Sirohi district, Rajasthan, India. *N. Jb. Miner. Abh.*, **160**.
- Le Fort, P. Debon, F. and Sonet, J. (1980) The lesser Himalayan Cordierite granite belt. Typology and age of the Pluton Manserah, Pakistan. *Proc. Int. Commit. Geodynamics. Corp. 6. Mfg. Peshawar Nov. 23-29, 1979. Spl. Issue Geol. Bull. Univ. Peshawar*.
- Le Fort, P. Debon, F. and Sonet, J. (1981) Lower Palaeozoic emplacement for granites and granitic gneisses of the Kathamandu Nappe (Central Nepal). *Terra Cognita, Spl. issue*, **30**, 72.
- Le Fort, P. Debon, F. and Sonet, J. (1983) The lower Palaeozoic lesser Himalayan granitic belt: emphasis on the Simchar Pluton of central Nepal granites of Himalayas, Karakorum and Hindu Kush. (ed)-Sham, F. A., *Institute*

- of Geology, Punjab Univ., Lahore, Pakistan, 235-255.*
- Le Maitre, R. W. (1968) Chemical variation within and between volcanic rock series - a statistical approach. *J. Petrol.*, **9**, 220-252.
- Le Maitre, R. W. (1982) *Numerical Petrology*. Elsevier Sci. Pub. Co., Amsterdam, pp. 281.
- Maheshwari, A. (1983) Geochemistry of volcanic rocks of Gura pratap Singh and Dir, Pali District, Rajasthan, India. *Ph.D. thesis, Submitted to University Of Rajasthan, Jaipur*, pp. 99.
- Mc Intyre, G. A., Brooks, C., Compston, W. and Turek, A. (1966) The statistical assessment of Rb-Sr isochrons. *J. Geophys. Res.*, **71**, 5459-5468.
- Mahoney, J. J. (1988) Deccan Traps. In '*Continental Flood Basalts*, J. D. Macdougall (ed.)', Kluwer Academic Publishers, Dordrecht, Netherlands, 151-194.
- Mehta, P. K. (1977) Rb-Sr geochronology of the Kulu Mandi Belt - its implications for the Himalayan tectogenesis. *Rund schau*, **66**, 156-175.
- Merrihue, C. and Turner, G. (1966) Potassium-argon dating by activation with fast neutrons. *J. Geophys. Res.*, **71**, 2852-2857.
- Mitchell, J. G. (1968) The argon⁴⁰/argon³⁹ method for potassium-argon age determination. *Geochim. Cosmochim. Acta.*, **32**, 781-790.
- Mohr, P. A. (1970) Volcanic composition in relation to tectonics in the Ethiopian rift system: a preliminary investigation. *Bull. Volcan.*, **34**, 141-157.
- Mukherjee, A. B. (1958) Structure of Malani Rhyolite and a part of the Siwana Granite around Siwana, Western Rajasthan. *Quart. J. Geol. Min. Met. Soc. Ind.*, **30**, 158-161.
- Murthy, M. V. N. (1962) The significance of the ring pattern of Siwana granite bosses in Western Rajasthan. *Ind. Minerals*, **16** (2), 297-298.
- Murthy, V. R. and Compston, W. (1965) Rb-Sr ages of chondrules and carbonaceous chondrites. *J. Geophys. Res.*, **70**, 5297.
- Nair, N. G. K., Soman, K., Santosh, M., Arkelyants, M. H. and Golubyev, V. N. (1985) K-Ar ages of three granite plutons from north Kerala. *Jour. Geol., Soc.*

India, **26**, 674-676.

- Narayan Das, G. R., Bagchi, A. K., Chaub, D. N., Sharma C. V. and Navaneethan, K. V. (1978) Rare metal content, geology and tectonic setting of the alkaline complexes across the Trans-Aravalli region, Rajasthan. *Recent Researches in Geology*, **7**, Hindustan Publishing Corpn.,
- Nicolaysen, L. O. (1961) Graphic interpretation of discordant age measurements of metamorphic rocks. *N. Y. Acad. Sci.*, **91**, 198-206.
- Pande, K., Venkatesan, T. R., Gopalan, K., Krishnamurthy, P. and Macdougall, J. D. (1988) ^{40}Ar - ^{39}Ar Ages of Alkali Basalts from Kutch, Deccan Volcanic Province, India. *Mem. Geol. Soc. India*, **10**, 145-150.
- Pankhurst, R. J., Moorbath, S., Rex, D. C. and Turner, G. (1973) Mineral age patterns in Ca. 3700 my old rocks from West Greenland. *Earth Planet. Sci. Lett.*, **20**, 157-170.
- Papanastassiou, A. and Wasserburg, G. J. (1971) Lunar chronology and evolution from Rb-Sr studies of Appolo 11 and 12 samples. *Earth Planet. Sci. Lett.*, **11**, 37-62.
- Pareek, H. S. (1981) Petrochemistry and Petrogenesis of the Malani Igneous Suite, India. *Geol. Soc. Amer. Bull.*, **92** (2), 206-273.
- Pareek, H. S. (1986) Petrography and Geochemistry of Tosham hill felsic volcanics, Haryana. *Jour. Geol. Soc. India*, **27**, 254-262.
- Pascoe, E. H. (1960) A manual of geology of India and Burma. *Manager of Publication Govt. of India, New Delhi*, pp. 480-482.
- Paul, D. K., Potts, P. J., Rex, D. C. and Beckinsale, R.D.(1977) Geochemical and petrogenetic study of the Gimnar igneous complex, Deccan volcanic province, India. *Bull. Geol. Soc. America*, **88**, 227-234.
- Phillips, D. and Onstott, T. C. (1986) Application of $^{36}\text{Ar}/^{40}\text{Ar}$ versus $^{39}\text{Ar}/^{40}\text{Ar}$ correlation diagram to the $^{40}\text{Ar}/^{39}\text{Ar}$ spectra of phlogopites from southern African Kimberlites. *Geophys. Res. Lett.*, **13**, 689-692.
- Provost, A. (1990) An improved diagram for isochron data. *Chem. Geol. (I. Geosci. Sect.)*, **80**, 85-99.

- Ranawat, P. S. and Dashora, R. S. (1984) Geology of Karara volcanic vent, Rajasthan. *Jour. Geol. Soc. India*, **25** (11), 728-734.
- Rathore, S. S. and Venkatesan, T. R. (1991) ^{40}Ar - ^{39}Ar age of essexite from Mundwara alkaline complex, Rajasthan. In *5th Natio. Symp. Mass Spectro.*, PRL, Ahmedabad, EPS-11.
- Rathore, S. S. and Venkatesan, T. R. (1993) ^{40}Ar - ^{39}Ar age of syenites from Mundwara alkali igneous complex, Rajasthan, India. In *6th Natio. Symp. Mass Spectro.*, IIP, Dehradun, 420-422.
- Roddick, J. C., Cliff, R. A., and Rex, D. C. (1980) The evolution of excess argon in alpine biotites - A ^{40}Ar - ^{39}Ar analysis. *Earth Planet. Sci. Lett.*, **48**, 185-208.
- Samson, S. D. and Alexander, E. C. Jr. (1987) Calibration of the interlaboratory ^{40}Ar - ^{39}Ar dating standard MMhb1-1. *Chem. Geol. (I. Geosci. Sect.)*, **66**, 27-34.
- Santosh, M., Iyer, S. S., Vasconcellos, M. B. A. and Enzweiler, J. (1989) Late Precambrian alkaline plutons in south west India: geochronologic and rare-earth element constraints on Pan-African magmatism. *Lithos*, **24**, 65-79.
- Santosh, M., Suzuki, K. and Masuda, A. (1994) Re-Os dating of molybdenite from southern India: Implication for Pan- African metallogeny. *Jour. Geol. Soc. India*, **43**, 585-590.
- Sarkar, A. and Bhattacharya, S. K. (1992) Carbonates from Rajasthan indicate mantle carbon-and-oxygen-isotopic composition. *Curr. Sci.*, **62**, 368-370.
- Schairer, J. F. and Yoder, H. S. Jr. (1961) Crystallization in the system nepheline-forsterite-silica at 1 atm. *Yb Carnegie Instn. Washington*, **60**, pp. 141.
- Schimizu, N. (1964) An experimental study of the partitioning of K, Rb, Sr, Cs and Ba between clinopyroxenes and liquids at high pressures. *Geochim. Cosmochim. Acta*, **38**, 1789-1798.
- Seidemann, D. E. (1976) An $^{40}\text{Ar}/^{39}\text{Ar}$ age spectrum for a cordierite-bearing rock: isolating the effects of excess radiogenic ^{40}Ar . *Earth Planet. Sci. Lett.*, **33**, 268.
- Sharma, T. R. (1967) Petrochemistry of the Mundwara igneous complex, Sirohi, district, Rajasthan. *Jour. Indian Geosci. Assn.*, **7**, 35-45.

- Sharma, T. R. (1969) Magmatic differentiation in the Mundwara igneous complex, Sirohi district, Rajasthan. *Jour. Indian Geosci. Assn.*, **11**, 79-84.
- Sinha Roy, S. (1984) Precambrian crustal interaction in Rajasthan, NW India. *Indian Jour. Earth Sci., CEISM Seminal Volume*, 84-91.
- Srivastava, R. K. (1983) Temporal status of alkaline rocks of Deccan volcanic province and S. W. Rajasthan. *Geol. Mag.*, **120** (3), 303-304.
- Srivastava, R. K. (1988) Magmatism in the Aravalli Mountain Range and its Environs. *Mem. Geol. Soc. India*, **7**, 77-93.
- Srivastava, R. K., Yadav, A., Ashiya, I. D. and Chawde, M. P. (1988) Geochemistry of the peralkaline silicic rocks from the Malani volcanic province, Rajasthan, India. *IGCP 217 Workshop on Proterozoic rocks of India, Calcutta*, 106-107.
- Srivastava, R. K., Agrawal, V., Ashiya, I. D., Chandrasekaran, M. P., Gaur, C. P., Maheshwari, A. and Yadav, A., (1988) Temporal status and chemical variability of the rocks of the Malani volcanic province of south western Rajasthan. In *Natio. Symp. Applica. Geochem.*, Shivaji University, Kolhapur, pp. **101**.
- Srivastava, R. K. (1989) Alkaline and peralkaline rocks of Rajasthan. *Mem. Geol. Soc. India*, **15**, 3-24.
- Srivastava, R. K., Maheshwari, A. and Upadhyaya, R. (1989a) Geochemistry of Felsic Volcanics from Gurapratap Singh and Dir, Pali District, Rajasthan (Part-I, Major Elements). *Jour. Geol. Soc. India*, **34**, 467-486.
- Srivastava, R. K., Maheshwari, A. and Upadhyaya, R. (1989b) Geochemistry of Felsic Volcanics from Gurapratap Singh and Dir, Pali District, Rajasthan (Part-II, Trace Elements). *Jour. Geol. Soc. India*, **34**, 617-631.
- Steiger, R. H. and Jager, E. (1977) Subcommittee on geochronology : convention on the use of decay constants in Geo-and-Cosmochronology. *Earth Planet. Sci. Lett.*, **36**, 359-362.
- Stettler, A. and Bochsler, P. (1979) He, Ne and Ar composition in a neutron activated sea-floor basalt glass. *Geochim. Cosmochim. Acta*, **43**, 157-169.
- Stoenner, R. W., Schaeffer, O. A. and Katcoff, S. (1965) Half-lives of argon-37, argon-39 and argon-42. *Science*, **148**, 1325-1328.

- Subrahmanyam, N. P. and Rao, G. V. U. (1972) Age of the Mundwara igneous complex, Rajasthan. *Current Science*, **41**, 388-391.
- Subrahmanyam, N. P. (1986) Petrology and geochemistry of the Mundwara alkali igneous complex, Rajasthan. *Ph.D. thesis, Submitted to Osmania University, Hyderabad*.
- Subrahmanyam, N. P. and Leelanandam, C. (1989) Differentiation due to probable initial immiscibility in the Musala pluton of the Mundwara alkali igneous complex, Rajasthan, India. *Mem. Geol. Soc. India*, **15**, 25-46.
- Subrahmanyam, N. P. and Leelanandam, C. (1991) Geochemistry and petrology of the cumulophytic layered suite of rocks from the Toa pluton of the Mundwara alkali igneous complex, Rajasthan. *Jour. Geol. Soc. India*, **38**, 397-411.
- Tazieff, H., Marinelli, G., Barberi, F. and Varet, J. (1969) Geologie de l'Afar Septentrional. Premiere expedition du CNRS-France et du CNR-Italie (Decembre 67 - Fevrier 68). *Bull. Volcan.*, **33**, 1039-72.
- Tetley, N., Mc Dougall, I. and Heydegger, M. R. (1980) Thermal neutron interferences in the $^{40}\text{Ar}/^{39}\text{Ar}$ dating technique. *J. Geophys. Res.*, **85** (1312), 7201-7205.
- Till, R. and Colley, H. (1973) Thoughts on the use of principal component analysis in petrogenetic problems. *J. Int. Assoc. Math. Geol.*, **5**, 341-350.
- Trivedi, J. R., Gopalan, K. and Valdiya, K. S. (1984) Rb-Sr ages of granitic rocks within the lesser Himalayan nappes, Kumaon, India. *Jour. Geol. Soc. India*, **25** (10), 451-464
- Trivedi, J. R. (1990) Geochronological studies of Himalayan Granitoids. Ph.D. thesis, PRL, Ahmedabad, Submitted to Gujarat University, Ahmedabad, pp.170.
- Turner, G. (1968) The distribution of potassium and argon in chondrites: In 'L. H. Ahrens (eds.), *Origin and Distribution of the Elements*. Pergamon, Oxford, pp. 387-398.
- Turner, G. (1971) Argon-40-argon-39 dating: The optimization of irradiation parameters. *Earth Planet. Sci. Lett.*, **10**, 227-234.

- Tuttle, O. F., Bowen, N. L. (1958) Origin of granite in the light of experimental studies in the system $\text{NaAlSi}_3\text{O}_8\text{-SiO}_2\text{-H}_2\text{O}$. *Mem. Geol. Soc. Amer.*, 74-153.
- Upadhyaya, R. and Srivastava, R. K. (1987) Clustering as an aid to evaluation of mode of genesis of the multiple intrusive body at Mundwara, Rajasthan. *Indian Jour. Geol.*, 59, 117-125.
- Upadhyaya, R., Srivastava, R. K. and Agrawal, V. (1988). A statistical approach to the study of an igneous suite - a case history of Tavidar volcanics. *N. Jb. Miner. Abh.*, 159, 311-324.
- Venkataraman, P. K., Sensharma, R. N. and Xavier, J. (1964) Petrology of some peralkaline granites of Barmer district, Rajasthan. *Geol. Surv. Ind. Misc.*, 8, 57-72.
- Venkatesan, T. R., Pande, K. and Gopalan, K. (1986) $^{40}\text{Ar}\text{-}^{39}\text{Ar}$ Dating of Deccan Basalts. *Jour. Geol. Soc. India*, 27 (1), 102-109.
- Venkatesan, T. R., Rathore, S. S. and Srivastava, R. K. (1990) Ar-Ar studies of Malani Complex in Rajasthan, India: Evidences for different magmatic episodes. *Jour. Geol. Soc. Australia*, 27, 106.
- Venkatesan, T. R., Pande, K. and Gopalan, K. (1993) Did Deccan volcanism pre-date the Cretaceous/Tertiary transition ?. *Earth Planet. Sci. Lett.*, 119, 181-189.
- Vincent, P. M. (1970) The evolution of the Tibesti volcanic province, eastern Sahara. In 'African Magmatism and Tectonics (T. N. Clifford and I. G. Gass. eds.), Oliver and Boyd, Edinburgh', pp. 301-319.
- Widenbeck, M. and Goswami, J. N. (1994) High precision $^{207}\text{Pb}/^{206}\text{Pb}$ zircon geochronology using a small ion microprobe. *Geochim. Cosmochim. Acta* (in press).
- Wijbrans, J. R. (1985) Geochronology of metamorphic terrains by the $^{40}\text{Ar}/^{39}\text{Ar}$ age spectrum method. *Ph.D. Diss, Australian National University, Canberra*.
- Williamson, J. H. (1968) Least square fitting of a straight line. *Can. Jour. Phys.*, 46, 1845-1847.
- Yadav, A. (1988) Geochemistry of Siwana granites and associated Rhyolites. *Ph.D.thesis, Submitted to University of Rajasthan, Jaipur*, pp. 114.
- Yadav, H. (1991) Geochemistry of the Jalore granites and associated Rhyolites.

- Ph.D. thesis, Submitted to University of Rajasthan, Jaipur, pp. 147.
- Yadava, B. R. and Karkare, S. G. (1976) Geochemistry of Mundwara igneous complex, District Sirohi, Rajasthan, India. *The Journal of Scientific Research, Banares Hindu University*, **26**, 1-105.
- York, D. (1966) Least square fitting of a straight line. *Can. Jour. Phys.*, **44**, 1079.
- York, D. (1969) Least square fitting of a straight line with correlated errors. *Earth Planet. Sci. Lett.*, **5**, 320-324.
- Zeitler, P. K. (1987) Argon diffusion in partially degassed alkaline feldspar: Insights from $^{40}\text{Ar}/^{39}\text{Ar}$ analysis. *Chem. Geol. (I. Geosci. Sect.)*, **65**, 167-181.