

REFERENCES

- Agnihotri, R., "Chemical and Isotopic Studies of Sediments from the Arabian Sea and Bay of Bengal", *Ph.D Thesis*, Mohanlal Sukhadia University, Udiapur, India (2001).
- Agnihotri, R., Dutta, K., Bhushan, R. and Somayajulu, B.L.K., "Evidence for Solar forcing on Indian monsoon during the last millennium", *Earth and Planetary Science Letters*, **198**, 521-527 (2002).
- Agnihotri, R., Bhattacharya, S.K., Sarin, M.M. and Somayajulu, B.L.K., "Changes in surface productivity and the subsurface denitrification during the Holocene: A multiproxy study from the eastern Arabian Sea", *The Holocene*, **135**, 701-713 (2003a).
- Agnihotri, R., Sarin, M.M., Somayajulu, B.L.K., Jull, A.J.T. and Burr, G.S., "Late-Quaternary biogenic productivity and organic carbon deposition in the eastern Arabian Sea", *Palaeogeography Palaeoclimatology Palaeoecology*, **197**, 43-60 (2003b).
- Ahmad S. M., Anil Babu G., Padmakumari V. M., Dayal A. M., Sukhija B. S., and Nagabhushanam P. "Sr, Nd isotopic evidence of terrigenous flux variations in the Bay of Bengal: Implications of monsoons during the last ~34,000 years", *Geophysical Research Letters*, **32**(22), 1-4 (2005).
- Ahmad S. M., Anil Babu G., Padmakumari V. M., and Raza, W., "Surface and deep water changes in the northeast Indian Ocean during the last 60 ka inferred from the carbon and oxygen isotopes of planktonic and benthic foraminifera", *Palaeogeography Palaeoclimatology Palaeoecology*, **262**, 182-188 (2008).
- Alley, R.B., Meese, D.A., Shuman, C.A. Gow, A.J., Taylor, K.C., Grootes, P.M., White, J.W.C., Ram, M., Waddington, E.D., Mayewski, P.A., Zielinski, G.A., "Abrupt increase in Greenland snow accumulation at the end of the Younger Dryas" *Nature*, **362**, 527-529 (1993).
- Alley, R.B., Mayewski, P.A., Sowers, T., Stuiver, M., Taylor, K.C. and Clark, P.U., "Holocene climatic instability: A prominent, widespread event 8200 yr ago", *Geology*, **25**(5), 483-486 (1997).
- Altabet, M.A., Pilskaln, C., Thunell, R., Pride, C., Sigman, D., Chavez, F. and Francois, R., "The nitrogen isotope biogeochemistry of sinking particles from the margin of the Eastern North Pacific", *Deep-Sea Research I*, **46**, 655-679 (1999).
- Altabet, M.A., Higginson, M.J. and Murray, D.W., "The effect of millennial-scale changes in Arabian Sea denitrification on atmospheric CO₂", *Nature*, **415**, 159-162 (2002).

- Amin, B.S., Likhite, S.D., Radhakrishnamurthy, C. and Somayajulu, B.L.K., " Susceptibility, stratigraphy and palaeomagnetism of some deep Pacific Ocean cores, " *Deep Sea Research*, **19**, 249-252, (1972).
- Andrews, J.E., Singhvi, A.K. Kailath, A.J., Kuhn, R., Dennis, P.F., Tandon, S.K. and Dhir, R.P., "Do Stable Isotope Data from Calcrete Record Late Pleistocene Monsoonal Climate Variation in the Thar Desert of India?" *Quaternary Research*, **50**(3), 240-251, (1998).
- Babu, C.P., Brumsack, H.-J., Schnetger, B. and Bottcher, M.E., "Barium as a productivity proxy in continental margin sediments: A study from the eastern Arabian Sea", *Marine Geology*, **184**, 189-206 (2002).
- Banakar, V.K., Oba, T., Chodankar, A.R., Kurmato, T., Yamamoto, M. and Minagawa, M., "Monsoon related changes in sea surface productivity and water column denitrification in the Eastern Arabian Sea during the last glacial cycle", *Marine Geology*, **219**, 99-108, 2005.
- Bard E., Arnold M., Ostlund H. G., Maurice P., Monfray P., and Duplessy J. C., "Penetration of bomb radiocarbon in the tropical Indian Ocean measured by means of accelerator mass spectrometry", *Earth & Planetary Science Letters*, **87**, 379-389 (1988).
- Bard, E., Arnold, M., Toggweiler, J.R., Maurice, P. and Duplessy, J.C., ".Bomb ^{14}C in the Indian Ocean measured by accelerator mass spectrometry: oceanographic implications", *Radiocarbon*, **31**(3), 510-522 (1990).
- Bender, M., T. Sowers, M.L. Dickson, J. Orchardo, P.M. Grootes, P.A. Mayewski, and D.A. Meese, "Climate correlations between Greenland and Antarctica during the past 100,000 years", *Nature*, **372**, 663-666 (1994).
- Benn, D. and Owen, L. A., "The role of the Indian summer monsoon and the mid-latitude westerlies in Himalayan glaciation: review and speculative discussion", *Journal of Geological Society of London*, **155**, 353-363 (1998).
- Berger, W.H., Smetacek, V.S. and Wefer, G., "Ocean productivity and paleoproduction – an overview", In: W.H. Berger, V.S. Smetacek and G. Wefer, Editors, *Productivity of the Ocean Present and Past*, 1989, Wiley, New York, 1-34 (1989).
- Bhushan, R., Somayajulu, B.L.K., Chakraborty, S. and Krishnaswami, S., "Radiocarbon measurements in the Arabian Sea water column: Temporal variations since two decades after GEOSECS and CO₂ air-sea exchange rates", *Journal of Geophysical Research*, **105**(C6), 14273-14282 (2000).
- Bhushan, R., Chakraborty, S. and Krishnaswami, S., "Physical Research Laboratory (Chemistry): Radiocarbon Date List CH-1", *Radiocarbon*, **36**, 251-256, (1994).

- Bhushan, R., Dutta, K., Mulsow, S., Povinec, P.P. and Somayajulu, B.L.K., "Distribution of natural and man-made radionuclides during reoccupation of GEOSECS Stations 413 and 416 in the Arabian Sea: Temporal change" *Deep-Sea Research II*, **50**, 2777-2784 (2003).
- Bhushan, R., Dutta, K. and Somayajulu, B.L.K., "Concentrations and burial fluxes of organic and inorganic carbon on the eastern margins of the Arabian Sea", *Marine Geology*, **178**, 95-113 (2001).
- Bhushan, R., Krishnaswami S. and Somayajulu, B.L.K., "¹⁴C in air over the Arabian Sea", *Current Science*, **73(3)**, 273-276 (1997).
- Bhushan, R., Dutta, K. and Somayajulu, B.L.K., "Estimates of the upwelling rates in the Arabian Sea and the equatorial Indian Ocean", *Journal of Environmental Radioactivity*, in press (2008).
- Bickle M. J., Chapman H. J., Bunbury J., Harris N. B. W., Fairchild I. J., Ahmad T., and Pomies C. (2005) Relative contributions of silicate and carbonate rocks to riverine Sr fluxes in the headwaters of the Ganges. *Geochimica et Cosmochimica Acta* **69(9)**, 2221-2240.
- Bishop, J.K.B., "The barite-opal-organic carbon association in oceanic particulate material", *Nature*, **332**, 341-343, (1988).
- Bond, G. et al., "Evidence for massive discharges of icebergs into the North Atlantic ocean during the last glacial period", *Nature*, **360**, 245-249 (1992).
- Bond, G.C. and Lotti, R., "Iceberg discharges into the north-Atlantic on millennial time scales during the last glaciation", *Science*, **267(5200)**, 1005-1010, (1995).
- Bond, G., Kromer, B., Beer, J., Muscheler, R., Evans, M.N., Showers, W., Hoffmann, S., Lotti-Bond, R., Hajdas, I. and Bonani, G., "Persistent solar influence on North Atlantic climate during the Holocene", *Science*, **294**, 2130-2136 (2001).
- Bookhagen, B., Thiede, R.C. and Strecker, M.R., "Abnormal monsoon years and their control on erosion and sediment flux in the high, arid northwest Himalaya", *Earth and Planetary Science Letters*, **231**, 131-146 (2005).
- Bostrom, K., Kraemer, T. and Gartner, S., "Provenance and accumulation rates Opaline Silica, Al, Ti, Fe, Mn, Cu, Ni and Co in Pacific Pelagic sediments", *Chemical Geology*, **11**, 123-148 (1973).
- Bouquillon, A., France-Lanord, C., Michard, A. and Tiercelin, J-J, "Sedimentology and isotopic chemistry of the Bengal fan sediments: The denudation of the Himalaya", *Proceedings of the Ocean Drilling Program, Scientific Results*, **116**, 43-58, (1990).

- Broecker, W.S., Peng, T.-H. and Stuiver, M., 1978. An estimate of the upwelling rate in the equatorial Atlantic based on the distribution of bomb radiocarbon. *Journal of Geophysical Research*, **83**(C12): 6179-6186.
- Broecker, W.S., Toggweiler, J.R. and Takahashi, T., "The Bay of Bengal - A major nutrient source for the deep Indian Ocean", *Earth and Planetary Science Letters*, **49**, 506-512 (1980).
- Broecker, W.S., Peng, T.-H., Ostlund, G. and Stuiver, M., "The distribution of bomb radiocarbon in the ocean", *Journal of Geophysical Research*, **90**, 6953-6970 (1985).
- Broecker, W.S. and Peng, T.-H., "Stratospheric contribution to the global bomb radiocarbon inventory: model versus observation", *Global Biogeochemical Cycles*, **8**, 377-384 (1994).
- Broecker, W.S., Sutherland, S., Smethie, W., Peng, T.-H. and Ostlund, G., "Oceanic radiocarbon: separation of the natural and bomb components", *Global Biogeochemical Cycles*, **9**, 263-288 (1995).
- Burton, K.W. and Vance, D., "Glacial-interglacial variations in the neodymium isotope composition of seawater in the Bay of Bengal recorded by planktonic foraminifera", *Earth and Planetary Science Letters*, **176**, 425-441 (2000).
- Canfield D. E., "Factors influencing organic carbon preservation in marine sediments", *Chemical Geology*, **114**, 315-329, (1994).
- Calvert S. E. and Pedersen T. F., "Organic carbon accumulation and preservation in marine sediments: How important is anoxia?" In *Productivity, Accumulation and Preservation of Organic Matter in Recent and Ancient Sediments*, 231-263 (1992).
- Carpenter, J.H., "The Chesapeake Bay Institute. Technique for the Winkler oxygen method. *Limnology Oceanography*, **10**, 141-143 (1965).
- Chakraborty, S., "Environmental significance of isotope and trace elemental variations in banded corals, Environmental significance of isotopic and trace elemental variations in banded corals" *Ph.D Thesis*, M.S. University of Baroda, 141 (1993).
- Chakraborty, S., Ramesh, R. and Krishnaswami, S., "Air-sea exchange of CO₂ in the Gulf of Kutch, northern Arabian Sea based on bomb-carbon in corals and tree rings", *Proceedings-Indian Academy of Sciences, Earth & Planetary Sciences*, 329-340 (1994).
- Chauhan, O.S. and Gujar, A.R., "Surficial clay mineral distribution on the southwestern continental margin of India : Evidence of input from the Bay of Bengal", *Continental Shelf Research*, **16**(3), 321-333 (1996).
- Chauhan, O.S. and Rao, Ch.M., "Influence of sedimentation on enrichment of manganese and growth of ferromanganese micronodules, Bengal Fan, India", *Marine Geology*, **161**, 39-47 (1999).

- Chauhan, O.S., "Geochemistry of ferromanganese micronodules and associated Mn and trace metals diagenesis at high terrigenous depositional site of middle fan region, Bay of Bengal", *Deep-Sea Research II*, **50**, 961–978, (2003).
- Chauhan, O.S., "Past 20,000-year history of Himalayan aridity: Evidence from oxygen isotope records in the Bay of Bengal", *Current Science*, **84**(1), 90-93 (2003).
- Chauhan, O.S., Patil, S.K. and Suneethi, J., "Fluvial influx and weathering history of the Himalayas since Last Glacial Maxima – isotopic, sedimentological and magnetic records from the Bay of Bengal", *Current Science*, **87**(4), 509-515 (2004).
- Chauhan, O.S., Rajawat, A.S., Pradhan, Y., Suneethi, J. and Nayak, S.R., "Weekly observations on dispersal and sink pathways of the terrigenous flux of the Ganga-Brahmaputra in the Bay of Bengal during NE monsoon", *Deep Research II*, **52**, 2018-2030 (2005).
- Chester, R. and Hughes, M.J. "The trace element geochemistry of a North Pacific pelagic core", *Deep sea Research*, **13**, 627-634 (1969).
- Clift, P. D., Lee, J.I., Hildebrand, P., Shimizu, N., Layne, G. D., Blusztajn, J., Blum, J. D., Garzanti, E., and Khan, A. A., "Nd and Pb isotope variability in the Indus River system: Implications for sediment provenance and crustal heterogeneity in the Western Himalaya", *Earth and Planetary Science Letters*, **200**, 91-106 (2002).
- Clemens S C and Prell W L, "One million year record of summer monsoon winds and continental aridity from the Owen Ridge (site 722), Northwest Arabian Sea", In: *Proceedings of the Ocean Drilling Program, Scientific Results*, **117** (eds) W L Prell, N Niituma, et al. (Texas: College Station) 365–388 (1991).
- Coleman, J.M., "Brahmaputra River: Channel processes and sedimentation", *Sediment Geology*, **3**, 129-239 (1969).
- Colin, C., Kissel, C., Blamart, D. and Turpin, L., "Magnetic properties of sediments in the Bay of Bengal and the Andaman Sea : Impact of rapid North Atlantic Ocean climatic events on the strength of the Indian monsoon", *Earth and Planetary Science Letters*, **160**, 623-635 (1998).
- Colin C., Turpin L., Bertaux J., Desprairies A., and Kissel C., "Erosional history of the Himalayan and Burman ranges during the last two glacial-interglacial cycles". *Earth and Planetary Science Letters* **171**(4), 647-660 (1999).
- Colin, C., L. Turpin, D. Blamart, N. Frank, C. Kissel, and S. Duchamp, "Evolution of weathering patterns in the Indo-Burman Ranges over the last 280 kyr: Effects of sediment provenance on $^{87}\text{Sr}/^{86}\text{Sr}$ ratios tracer", *Geochemistry Geophysics Geosystems*, **7**(3), Q03007, doi:10.1029/2005GC000962 (2006).

- Cullen, J.L. "Microfossil evidence for changing salinity patterns in the Bay of Bengal over the last 20,000 years", *Paleogeography Paleoclimatology Paleoecology*, **35**, 315-356 (1981).
- Curray, J.R., "Sediment volume and mass beneath the Bay of Bengal", *Earth and Planetary Science Letters*, **125**, 371-383 (1994).
- Currie, R.I., Fisher A.E. and Hargreaves, P.M., "Arabian Sea Upwelling", *The Biology of the Indian Ocean*, B. Zeitzschel (ed.), Chapman and Hall Ltd., 37-52 (1973).
- Dalai, T.K., Krishnaswami, S. and Kumar, A., "Sr and $^{87}\text{Sr}/^{86}\text{Sr}$ in the Yamuna River System in the Himalaya: Sources, fluxes and controls on Sr isotopic composition", *Geochimica et Cosmochimica Acta*, **67(16)**, 2931-2948 (2003).
- Dansgaard, W., Johnsen, S.J., Clausen, H.B., Dahl-Jensen, D., Gundestrup, N.S., Hammer, C. U. Hvidberg, C. S., Steffensen, J. P., Sveinbjnsdottir, A. E., Jouzel, J. and Bond G., "Evidence for general instability of past climate from a 250-kyr ice-core record" *Nature*, **364**, 218 - 220 (1993).
- Das, A., S. Krishnaswami, and A. Kumar, "Sr and $^{87}\text{Sr}/^{86}\text{Sr}$ in rivers draining the Deccan Traps (India): Implications to weathering, Sr fluxes, and the marine $^{87}\text{Sr}/^{86}\text{Sr}$ record around K/T", *Geochemistry Geophysics Geosystems*, **7**, Q06014, doi:10.1029/2005GC001081 (2006).
- Degens, E.T., "Geochemistry of Sedimentary Formations", Russian Translation, Mir, Moscow (1967).
- Derry, L.A., "Neogene growth of the sedimentary organic carbon reservoir", *Paleoceanography*, **11(3)**, 267-275 (1996).
- Derry, L.A. and France-Lanord, C., "Neogene Himalayan weathering history and river $^{87}\text{Sr}/^{86}\text{Sr}$: Impact on the marine Sr record", *Earth and Planetary Science Letters*, **142**, 59-74 (1996).
- Derry, L. A., and C. France-Lanord, "Himalayan weathering and erosion fluxes: Climate and tectonic controls, in Tectonic Uplift and Climate Change", edited by W. F. Ruddiman, 289-312, Springer, New York (1997).
- Dickens, A.F., Gelinas, Y., Masiello, C.A., Wakeham, S. and Hedges, J.I., "Reburial of fossil organic carbon in marine sediments", *Nature*, **427**, 336-339 (2004).
- D.O.E., "Handbook of methods for the analysis of the various parameters of the carbon dioxide system in seawater", version 1.0, edited by A.G. Dickson and C. Goyet (1991).
- Dube, S.K., Rao, A.D., Sinha, P.C. and Jain, I., "Implications of climatic variations in the fresh water outflow on the wind-induced circulation of the Bay of Bengal", *Atmospheric Environment*, **29(16)**, 2133-2138 (1995).

- Duplessy, J.C., "Glacial to interglacial contrasts in the northern Indian Ocean", *Nature*, **295**, 495–498 (1982).
- Dupre, B., Viers, J., Oliva, P., Fortune, J.P., Braun, J.J., Martin, F. and Robian, H., "The effect of organic matter on chemical weathering in the tropics", *Mitt. Geol-Palaont. Inst., Univ. Hamburg*, **82**, 35-38(1999).
- Dutta, K., "Study of marine processes in the Northern Indian Ocean using radiocarbon" *Ph.D. Thesis*, M.S. University of Baroda, Vadodara, India (2001).
- Dutta, K., Bhushan, R. and Somayajulu, B.L.K., "ΔR correction values for the Northern Indian Ocean.", *Radiocarbon*, **43**(2), 483-488 (2001).
- Dutta, K., Bhushan, R. and Somayajulu, B.L.K., "Rapid vertical mixing in deep waters of the Andaman Sea", *The Science of the Total Environment*, **384**(1-3): 401-408, (2007).
- Dutta, K., Bhushan, R., Somayajulu, B.L.K. and Rastogi, N., "Interannual Variation of Atmospheric $\Delta^{14}\text{C}$ over the Northern Indian Ocean", *Atmosphere Environment*, **40**(24), 4501-4512 (2006).
- Dymond J., Suess E., and Lyle M., "Barium in deep-sea sediment: a geochemical proxy for paleoproductivity", *Paleoceanography*, **7**(2), 163-181 (1992).
- Dymond, J., Collier, R., McManus, J., Honjo, S. and Manganini, S., "Can the aluminium and titanium contents of ocean sediments be used to determine the paleoproductivity of the oceans", *Paleoceanography*, **12**(4), 586-593 (1997).
- Edmond, J.M., "Himalayan tectonics, weathering processes, and the strontium isotope record in marine limestones" *Science* **258**, 1594–1597 (1992).
- Eigenheer, A. and Quadfasel, D., "Seasonal variability of the Bay of Bengal circulation inferred from TOPEX/Poseidon altimetry", *Journal of Geophysical Research*, **105**(C2), 3243-3252 (2000).
- Emerson S., "Organic carbon preservation in marine sediments" *The carbon cycle and atmospheric CO₂: natural variations Archean to present. Chapman conference papers*, **1984**, 78-87 (1985).
- Emerson, S. and Hedges, J.I., "Processes controlling the organic carbon content of open ocean sediments", *Paleoceanography*, **3**(5), 621-634 (1988).
- Esbensen, S.K. and Kushnir, Y., "The heat budget of the global ocean: An atlas based on estimates from surface marine observations, The Heat Budget of the Global Ocean", *An Atlas Based on Estimates from Surface Marine Observations* (1981).
- Fang, X. M., Ono, Y., Fukusawa, H., Tian, P. B., Li, J. J., Hong, G. D., Oi, K., Tsukamoto, S., Torii, M., Mishima, T., "Asian summer monsoon instability during the past 60,000

- years: magnetic susceptibility and pedagogic evidence from the western Chinese Loess Plateau", *Earth Planetary Science Letters*, **168**, 219–232 (1999).
- Flood, R. D., Piper, D. J.W., and Klaus, A., "Proceedings of the OceanDrilling Program, Initial reports, Volume 155: College Station, Texas", *Ocean Drilling Program*, 1233, (1995).
- France-Lanord C., Derry L., and Michard A., "Evolution of the Himalaya since Miocene time: isotopic and sedimentological evidence from the Bengal Fan", *Himalayan Tectonics*, 603-621 (1993).
- France-Lanord C. and Derry L. A., " $\delta^{13}\text{C}$ of organic carbon in the Bengal Fan: source evolution and transport of C3 and C4 plant carbon to marine sediments", *Geochimica et Cosmochimica Acta* **58**(21), 4809-4814 (1994).
- France-Lanord, C. and Derry, L.A., "Organic carbon burial forcing of the carbon cycle from Himalayan erosion", *Nature*, **390**, 65-68 (1997).
- Francois, R., Honjo, S., Manganini, S.J. and Ravizza, G.E., "Biogenic barium fluxes to the deep sea: Implications for paleoproductivity reconstruction", *Global Biogeochemical Cycles*, **9**(2), 289-303 (1995).
- Frank, M., "Radiogenic Isotopes : Tracers of Past Ocean Circulation and Erosional Input", *Reviews of Geophysics*, **40**, 1-38 (2002).
- Frerichs, W.E., "Pleistocene-Recent Boundary and Wisconsin Glacial Biostratigraphy in the Northern Indian Ocean", *Science*, **159** (3822):1456-1458 (1968).
- Galy, A., C. France-Lanord and L.A. Derry, "The Late Oligocene-Early Miocene Himalayan belt constraints deduced from isotopic compositions of Early Miocene turbidites in the Bengal Fan", *Tectonophysics*, **260**, 109-118 (1996).
- Galy A. and France-Lanord C., "Weathering processes in the Ganges-Brahmaputra basin and the riverine alkalinity budget", *Chemical Geology* **159**(1-4), 31-60 (1999).
- Galy, A., France-Lanord, C. and Derry L.A., "The strontium isotopic budget of Himalayan rivers in Nepal and Bangladesh", *Geochimica et Cosmochimica Acta*, **63** (13-14), 1905-1925 (1999).
- Galy A. and France-Lanord C., "Higher erosion rates in the Himalaya: Geochemical constraints on riverine fluxes", *Geology*, **29**(1), 23-26 (2001).
- Galy V. and France-Lanord C., "Particulate organic carbon transport during Himalayan erosion", *Geochimica et Cosmochimica Acta*, **70**(18, Supplement 1), A191 (2006).
- Galy V., France-Lanord C., and Lartiges B., "Loading and fate of particulate organic carbon from the Himalaya to the Ganga-Brahmaputra delta", *Geochimica et Cosmochimica Acta*, **72**(7), 1767-1787 (2008).

- Ganeshram, R.S., Pedersen, T.F., Calvert, S.E. and Francois, R., "Reduced nitrogen fixation in the glacial ocean inferred from changes in marine nitrogen and phosphorus inventories", *Nature*, **415**, 156-159 (2002).
- Gasse F. & Van Campo E., "Abrupt post-glacial climate events in west Asia and North Africa monsoon domains", *Earth Planetary Science Letters*, **126**, 435-456 (1994).
- Gauns, M., Madhupratap, M., Ramaiah, N., Jyothibabu, R., Fernandes, V., Paul, J.T. and Prasanna Kumar, S., "Comparative accounts of biological productivity characteristics and estimates of carbon fluxes in the Arabian Sea and the Bay of Bengal", *Deep Sea Research II*, **52**, 2003-2017 (2005).
- George M. D., Dileep Kumar M., Naqvi S. W. A., Banerjee S., Narvekar P. V., de Sousa S. N., and Jayakumar D. A., "A study of the carbon dioxide system in the northern Indian Ocean during premonsoon", *Marine Chemistry*, **47**(3-4), 243-254 (1994).
- Goldberg, E.D. and Griffin, J.J., "The sediments of the northern Indian Ocean", *Deep Sea Research*, **17**, 513-537 (1970).
- Goldberg, E.D. and Arrhenius G.O.S., "Chemistry of Pacific pelagic sediments", *Geochimica et Cosmochimica Acta*, **13**(2-3), 153-198, 199-212 (1958).
- Goldstein, S.J. and Jacobsen, S.J., "The Nd and Sr isotopic systematics of river-water dissolved material: Implications for the sources of Nd and Sr in seawater", *Chemical Geology: Isotope Geoscience section*, **66**(3-4), 245-272 (1987).
- Goodbred Jr. S. L. and Kuehl S. A., "Holocene and modern sediment budgets for the Ganges-Brahmaputra river system: Evidence for highstand dispersal to flood-plain, shelf, and deep-sea depocenters", *Geology*, **27**(6), 559-562 (1999).
- Goodbred, S. L., "Response of the Ganges dispersal system to climate change: a - source-to-sink view since the last interstadial", *Sedimentary Geology*, **162**, 83-104 (2003).
- GRIP Members, "Climate instability during the last interglacial period recorded in the GRIP ice core" *Nature*, **364**, 203-207 (1993).
- Grootes, P.M., M. Stuiver, J.W.C. White, S.J. Johnsen, and J. Jouzel., "Comparison of oxygen isotope records from the GISP2 and GRIP Greenland ice cores", *Nature*, **366**, 552-554 (1993).
- Grumet N. S., Guilderson T. P., and Dunbar R. B. "Meridional transport in the Indian Ocean traced by coral radiocarbon", *Journal of Marine Research*, **60**(5), 725-742 (2002a).
- Grumet N. S., Guilderson T. P., and Dunbar R. B. "Pre-bomb radiocarbon variability inferred from a Kenyan coral record", *Radiocarbon*, **44**(2), 581-590 (2002b).

- Gupta, A K and Thomas, E., "Initiation of Northern Hemisphere glaciation and strengthening of the northeast Indian monsoon: Ocean Drilling Program Site 758, eastern equatorial Indian Ocean", *Geology*, **31**, 47-50 (2003).
- Haigh, J.D., Climate variability and the influence of the Sun", *Science*, **294**, 2109-2111 (2001).
- Hartnett, H.E., Keil, R.G., Hedges, J.I. and Devol, A.H., "Influence of oxygen exposure time on organic carbon preservation in continental margin sediments", *Nature*, **39**, 572-574 (1998).
- Hedges, J.I., Baldock, J.A., Ge'linas, Y., Lee, C., Peterson, M. and Wakeham, S.G., "Evidence for non-selective preservation of organic matter in sinking marine particles", *Nature*, **409**, 801- 804 (2001).
- Heinrich, H., "Origin and consequences of cyclic ice rafting in the Northeast Atlantic Ocean during the past 130,000 years", *Quaternary Research*, **29**(2), 142-152 (1988).
- Henderson, G.M., "New oceanic proxies for paleoclimate", *Earth and Planetary Science Letters*, **203**, 1-13 (2002).
- Herzschuh, U., " Paleo-moisture evolution in monsoonal Central Asia during the last 50,000 years", *Quaternary Science Reviews*, **25**, 163-178 (2006).
- Heusser, L.E., and Sirocko, F., "Millennial pulsing of environmental change in southern California from the past 24 k.y.: a record of Indo-Pacific ENSO events" *Geology*, **25**, 243-246 (1997).
- Higginson, M.J., Altabet, M.A., Wincze, L., Herbert, D. and Murray, D.W., "A solar (irradiance) trigger for millennial-scale abrupt changes in the southwest monsoon?", *Paleoceanography*, **19**, PA3015, 1-18 (2004).
- Hohndorf A., Kudrass H. R., and France-Lanord C. "Transfer of the Sr isotopic signature of the Himalayas to the Bay of Bengal", *Deep-Sea Research Part II: Topical Studies in Oceanography*, **50**(5), 951-960 (2003).
- Howden, S.D. and Murtugudde, R., "Effects of river inputs into the Bay of Bengal", *Journal of Geophysical Research*, **106**(C9), 19825-19843 (2001).
- Howell, E.A., Doney, S.C., Fine, R.A. and Olson, D.B., "Geochemical estimates of denitrification in the Arabian Sea and the Bay of Bengal during WOCE", *Geophysical Research Letters*, **24**(21), 2549-2552 (1997).
- Hughen, K.A., Overpeck, J.T., Peterson, L.C. and Trumbore, S., "Rapid climate changes in the tropical Atlantic region during the last deglaciation", *Nature*, **380**, 51-59 (1996).
- Hua, Q. and Barbetti, M., "Review of tropospheric bomb ^{14}C data for carbon cycle modeling and age calibration purposes" *Radiocarbon*, **46**(3): 1273-1298 (2004).

- Imbrie, J., "A theoretical framework for the Pleistocene ice ages" *Journal of the Geological Society of London*, **142**(3), 417-432 (1985).
- Ittekkot, V., Nair, R.R., Honjo, S., Ramaswamy, V., Bartsch, M., Manganini, S. and Desai, B.N., "Enhanced particle fluxes in Bay of Bengal induced by injection of fresh water", *Nature*, **351**, 385-387 (1991).
- Jacobson, A.D., Blum, J.D. and Walter, L.M., "Reconciling the elemental and Sr isotope composition of Himalayan weathering fluxes: insights from the carbonate geochemistry of stream waters", *Geochimica et Cosmochimica Acta*, **66**(19), 3417-3429 (2002).
- Jain, M., Tandon, S. K., "Fluvial response to Late Quaternary climate changes, western India", *Quaternary Science Reviews* **22**, 2223-2235 (2003).
- Johnson, K.M., King, A.E. and Sieburth, J. M., "Coulometric TCO₂ analyses for marine studies: an introduction", *Marine Chemistry*, **16**, 61-82 (1985).
- Juyal, N., Kar, A., Rajaguru, S.N., Singhvi, A.K., "Luminescence chronology of aeolian deposition during the Late Quaternary on the southern margin of Thar Desert, India" *Quaternary International*, **104**, 87-98 (2003).
- Juyal, N., Pant, R.K., Basavaiah, N., Yadava, M.G., Saini, N.K. and Singhvi, A.K. (2004) Climate and seismicity in the Higher Central Himalaya during the last 20 ka: evidences from Garbayang basin, Uttaranchal, India", *Palaeogeography Palaeoclimatology Palaeoecology*, **213**, 315-330 (2004)
- Juyal, N., Chamyal, L.S., Bhandari, S., Bhushan, R. and Singhvi, A.K., "Continental records of the southwest monsoon during the last 130ka: Evidence from the southern margin of the Thar Desert, India", *Quaternary Science Reviews*, **25**, 2632-2650 (2006).
- Kale, V.S. and Rajaguru, S.N., "Late Quaternary alluvial history of the Northwestern Deccan upland region", *Nature*, **325**, 612-614 (1987).
- Kamesh Raju, T. Ramprasad, P.S. Rao, B. Ramalingeswara Rao and J. Varghese, "New insights into the tectonic evolution of the Andaman basin, northeast Indian Ocean" *Earth Planetary Science Letters*, **221**, 145-162 (2004).
- Kennett, E. J. and R. Toumi, "Himalayan rainfall and vorticity generation within the Indian summer monsoon", *Geophysical Research Letters*, **32**(4): 1-4 (2005).
- Kessarkar, P.M., Rao, V.P., Ahmad, S.M., Patil, S.K., Anil Kumar, A., Anil Babu, G., Chakraborty, S. and Soundar Rajan, R., "Changing sedimentary environment during the Late Quaternary: Sedimentological and isotopic evidence from the distal Bengal Fan", *Deep Sea Research I*, **52**(9), 1591-1615 (2005).

- Klump, J., Hebbeln, D. and Wefer, G., "The impact of sediment provenance on barium-based productivity estimates", *Marine Geology*, 169(3-4), Pages 259-271 (2000).
- Kodera, K., "Solar influence on the Indian Ocean Monsoon through dynamical processes", *Geophysical Research Letters*, 31, L24209, 1-4 (2004).
- Kolla V. and Biscaye P. E., "Clay mineralogy and sedimentation in the eastern Indian Ocean", *Deep Sea Research and Oceanographic Abstracts*, 20(8), 727-728 (1973).
- Kolla, V. and Coumes, F., "Morpho-acoustic and sedimentologic characteristics of the Indus Fan", *Geo-Marine Letters*, 3, 133-140 (1984).
- Kolla V., Henderson L., and Biscaye P. E., "Clay mineralogy and sedimentation in the western Indian ocean", *Deep Sea Research and Oceanographic Abstracts*, 23(10), 949-961 (1976a).
- Kolla V., Moore D. G., and Curray J. R., "Recent bottom-current activity in the deep western Bay of Bengal", *Marine Geology*, 21(4), 255-270 (1976b).
- Kolla, V., Bé, A.W.H. and Biscaye, P.E., "Calcium carbonate distribution in the surface sediments of the Indian Ocean", *Journal of Geophysical Research*, 81 (C15), 2605-2616, 1976.
- Kolla V., Ray P. K., and Kostecki J. A., "Surficial sediments of the Arabian Sea", *Marine Geology*, 41(3-4), 183-204 (1981).
- Kolla V. and Rao N. M., "Sedimentary sources in the surface and near-surface sediments of the Bay of Bengal", *Geo-Marine Letters*, 10(3), 129-135 (1990).
- Kotlia, B.S., Bhalla, M.S., Sharma, C., Rajagopalan, G., Ramesh, R., Chauhan, M.S., Mathur, P.D., Bhandari, S., Chacko, S.T., "Palaeoclimatic conditions in the upper Pleistocene and Holocene Bhimtal-Naukuchiatal lake basin in south-central Kumaun, North India", *Palaeogeography, Palaeoclimatology Palaeoecology*, 130, 307-322 (1997).
- Kotlia, B.S., Sharma, C., Bhalla, M.S., Rajagopalan, G., Subrahmanyam, K., Bhattacharyya, A., Valdiya, K.S., "Palaeoclimatic conditions in the late Pleistocene Wadda Lake, eastern Kumaun Himalaya (India)", *Palaeogeography Palaeoclimatology Palaeoecology*, 162, 105-118 (2000).
- Krishnaswami, S., Trivedi, J.R., Sarin, M.M., Ramesh, R. and Sharma, K.K., "Strontium isotopes and rubidium in the Ganga-Brahmaputra river system: Weathering in the Himalaya, fluxes to the Bay of Bengal and contributions to the evolution of oceanic $^{87}\text{Sr}/^{86}\text{Sr}$ ", *Earth and Planetary Science Letters*, 109, 243-253 (1992).
- Krishnaswami, S. and Nair, R.R., "JGOFS (India) - Introduction", *Current Science*, 831-905 (1996).

- Kudrass H. R., Hofmann A., Doose H., Emeis K., and Erlenkeuser H., "Modulation and amplification of climatic changes in the Northern Hemisphere by the Indian summer monsoon during the past 80 k.y." *Geology*, **29**(1), 63-66 (2001).
- Kuehl, S.A., Levy, B.M., Moore, W.S. and Allison, M.A., "Subaqueous delta of the Ganges-Brahmaputra river system", *Marine Geology*, **144**, 81-96 (1997).
- Kumar S. P., Nuncio M., Narvekar J., Kumar A., Sardesai S., De Souza S. N., Gauns M., Ramaiah N., and Madhupratap M., "Are eddies nature's trigger to enhance biological productivity in the Bay of Bengal?", *Geophysical Research Letters* **31**(7), L07309 1-5 (2004).
- Lal D., "Biogeochemistry of Arabian Sea", *Proceedings of Indian Academy of Sciences- Earth and Planetary Sciences*, **103** (1994).
- Lassey, K.R., Manning, M.R. and O'Brien, B.J., "An overview of Oceanic Radiocarbon: Its inventory and dynamics", *Aquatic Science*, **3**(2-3): 117-146 (1990).
- Leuschner, D.C. and Sirocko, F., "Orbital insolation forcing of the Indian Monsoon- a motor for global climate changes", *Palaeogeography Palaeoclimatology Palaeoecology*, **197**, 83-95 (2003).
- Lisitsyn, A.P., "Sedimentation in the World Ocean", Banta Press, Tulsa, (1972).
- Lisitsyn, A.P., *Oceanic Sedimentation : Lithology & Geochemistry*, 192-230 (1996).
- Madhupratap, M., Gopalakrishnan, T.C., Haridas, P., Nair, .K.C., "Mesozooplankton biomass, composition and distribution in the Arabian Sea during fall intermonsoon: implications of oxygen gradients", *Deep-Sea Research II*, **48**, 145-1368 (2001).
- Madhupratap M., Gauns M., Ramaiah N., Prasanna Kumar S., Muraleedharan P. M., de Sousa S. N., Sardessai S., and Muraleedharan U., "Biogeochemistry of the Bay of Bengal: physical, chemical and primary productivity characteristics of the central and western Bay of Bengal during summer monsoon", *Deep Sea Research Part II: Topical Studies in Oceanography Bay of Bengal* ,**50**(5), 881-896 (2003).
- Mallik T. K., "Shelf sediments of the ganges delta with special emphasis on the mineralogy of the western part, Bay of Bengal, Indian Ocean", *Marine Geology* **22**(1), 1-32 (1976).
- Mangini, A., Jung, M. and Laukenmann, S., "What do we learn from peaks of uranium and of manganese in deep sea sediments?", *Marine Geology*, **177**, 63-78 (2001).
- McGregor, G.R. and Nieuwolt, S., "Tropical Climatology: An Introduction to the Climates of the Low Latitudes", Book, Publisher: John Wiley & Sons Inc; 2nd edition, 339pp. (1998).
- McManus J., Berelson W. M., Klinkhammer, G. P., Johnson, K. S., Coale, K. H., Anderson R. F., Kumar N., Burdige D. J., Hammond D. E., Brumsack H. J., McCorkle D. C., and

- Rushdi A., "Geochemistry of barium in marine sediments: Implications for its use as a paleoproxy", *Geochimica et Cosmochimica Acta*, **62**(21-22), 3453-3473 (1998).
- Measures, C.I., Edmond, J.M., Jickells, T.D., "Aluminium in the North West Atlantic", *Geochimica et Cosmochimica Acta*, **50**, 1423-1429 (1986).
- Métivier, G., "Stability of output fluxes of large rivers in South and East Asia during the last 2 million years: implications on floodplain processes", *Basin Research*, **11**(4), 293-303 doi:10.1046/j.1365-2117.1999.00101.x (1999).
- Meybeck, M., "Concentrations and fluxes of major elements in solution to the oceans", *Review of Geological Dynamic Geographic Physics*, **21**, 215-246, (1979).
- Meyers, P., "Preservation of elemental and isotopic identification of Sedimentary organic matter", *Chemical Geology*, **144**, 289-302 (1994).
- Meyers, P., "Organic geochemical proxies of paleoceanographic, paleolimnologic, and paleoclimatic processes", *Organic Geochemistry*, **27**, 213-250 (1997).
- Milankovich, M., "Théorie mathématique des phénomènes thermiques produits par la radiation Solaire" Paris, Gauthier-Villars (1920).
- Milliman, J.D. and Meade R.H., "World wide delivery of sediments river sediment to the oceans", *Journal of Geology*, **91**, 1-21 (1983).
- Milliman, J.D. and Syvitski, J.P.M., "Geomorphic/Tectonic control of sediment discharge to the ocean: the importance of small mountainous rivers", *Journal of Geology*, **100**, 525-544 (1992).
- Mulder, T. and Syvitski J.P.M., "Climatic and morphologic relationships of rivers. Implications of sea level fluctuations on river loads", *Journal of Geology* **104**, 509-523 (1996).
- Naidu, P.D. and Malmgren, B.A., "Quaternary carbonate record from the equatorial Indian Ocean and its relationship with productivity changes", *Marine Geology*, **161**, 49-62 (1999).
- Naidu, P.D. and Malmgren, B.J., "A high-resolution record of late Quaternary upwelling along the Oman Margin, Arabian Sea based on planktonic foraminifera", *Paleoceanography*, **11**(1), 129-140 (1996).
- Naidu, P.D., "Postglacial Indian Ocean", *Encyclopedia of Quaternary Sciences*, Elsevier, 1831-1839 (2007).
- Nair, R.R., Ittekkot, V., Manganini, S.J., Ramaswamy, V., Haake, B., Degens, E.T., Desai, B.N. and Honjo, S., "Increased particle flux to the deep ocean related to monsoons", *Nature*, **338**, 749-751 (1989).

- Naqvi S. W. A., "Denitrification processes in the Arabian Sea", *Proc. Ind. Acad. Sci.*, **103**, pp. 181-202 (1994).
- Naqvi, S.W.A., Shailaja, M.S., Dipeep Kumar, M. and Sengupta, R., "Respiration rates in subsurface waters of the northern Indian Ocean: Evidence for low decomposition rates of organic matter within the water column in the Bay of Bengal", *Deep Research Research II*, **43(1)**, 73-81 (1996).
- Naqvi, S.W.A., "Chemical oceanography", *The Indian Ocean: A perspective*. eds. by: SenGupta, R.; Desa, Ehrlich, Oxford & IBH; New Delhi (India): **1**; 159-236 (2001).
- Naqvi S. W. A., Naik H., Pratihary A., D'Souza W., Narvekar P. V., Jayakumar D. A., Devol A. H., Yoshinari T., and Saino T., "Coastal versus open-ocean denitrification in the Arabian Sea", *Biogeosciences* **3(4)**, 621-633 (2006).
- Narvekar, P.V., Bhushan, R. and Somayajulu, B.L.K., "Ascertaining depths for samples from hydrographic casts without CTD", *Journal of Marine and Atmospheric Research*, **1**, 33-37 (1997).
- Nath, B. N., Bau, M., Rao, B.R. and Rao, Ch.M., "Trace and rare earth elemental variation in Arabian Sea sediments through a transect across the oxygen minimum zone", *Geochimica et Cosmochimica Acta*, **61**, 2375-2388 (1997).
- Nath, B.N., "Geochemistry of sediments", *The Indian Ocean: A perspective*. eds. by: Sengupta, R.; Desa, Ehrlich, Oxford & IBH; New Delhi (India): **2**, 645-689 (2001).
- Nydal, R. and Lovseth, K., "Tracing bomb ^{14}C in the atmosphere 1962-1980", *Journal of Geophysical Research*, 3621-3642 (1983).
- Nydal, R. and Lovseth, K., "Carbon-14 Measurements in the Atmospheric CO₂ from Northern and Southern Hemispheric Sites", 1962-1993 (1996).
- Oeschger, H., Siegenthaler, U., Schlotterer, U. and Gugelmann, A., "A box diffusion model to study the carbon dioxide in nature" *Tellus*, **27**: 168-192 (1975).
- Okubo A., Obata H., Nozaki Y., Yamamoto Y., and Minami H., " ^{230}Th in the Andaman Sea: Rapid deep-sea renewal", *Geophysical Research Letters*, **31**, 1-5 (2004).
- Ostlund, H.G., Oleson, R. and Brescher, R., "GEOSECS Indian Ocean radiocarbon and tritium results (Miami)", *Tritium Lab Data Report*, **9** (1980).
- Overpeck, J., Anderson, D., Trumbore, S., Prell, W., "The southwest monsoon over the last 18000 years", *Climate Dynamics*, **12**, 213–225 (1996).
- Owen, L.A., Finkel, R.F., Barnard, P.L., Haizhou, M., Asahi, K., Caffee, M.W. and Derbyshire, E, "Climatic and topographic controls on the style and timing of Late Quaternary glaciation throughout Tibet and the Himalaya defined by ^{10}Be

- cosmogenic radionuclide surface exposure dating", *Quaternary Science Reviews*, **24**(12-13), 1391-1411, 2005.
- Palmer, M.R. and Edmond, J.M., "The strontium isotope budget of the modern ocean", *Earth and Planetary Science Letters*, **92**(1), 11-26 (1989).
- Palmer, M.R. and Edmond, J.M., "Controls over the strontium isotope composition of river water", *Geochimica et Cosmochimica Acta*, **56**(5), 2099-2111 (1992).
- Pant, R.K., Juyal, N., Basavaiah, N. and A.K. Singhvi, "Late Quaternary glaciation and seismicity in the Higher Central Himalaya: evidence from Shalang basin (Goriganga), Uttarakhand", *Current Science*, **90**, 1500-1505 (2006).
- Paropkari, A.L., Babu, C.P. and Mascarenhas, A., "A critical evaluation of depositional parameters controlling the variability of organic carbon in Arabian Sea sediments", *Marine Geology*, **107**, 213-226 (1992).
- Paropkari, A.L., Babu, C.P. and Mascarenhas, A., "New evidence for enhanced preservation of organic carbon in contact with oxygen minimum zone on the western continental slope of India", *Marine Geology*, **111**, 7-13 (1993).
- Pattan, J.N. and Shane, P., "Excess aluminum in deep sea sediments of the Central Indian Basin", *Marine Geology*, **161**, 247-255 (1999).
- Pattan J. N., Masuzawa T., Naidu P. D., Parthiban G., and Yamamoto M. (2003) Productivity fluctuations in the southeastern Arabian Sea during the last 140 ka. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **193**(3-4), 575-590.
- Peng, T.-H., Key, R.M. and Ostlund, H.G., "Temporal variations of bomb radiocarbon inventory in the Pacific Ocean", *Marine Chemistry*, 3-13 (1998).
- Pierson-Wickmann, A-C., Reisberg, L. and France-Lanord, C., "Os-Sr-Nd results from sediments in the Bay of Bengal: Implications for sediment transport and the marine Os record", *Paleoceanography*, **16**(4), 435-444 (2001).
- Prasanna Kumar S., Muraleedharan P. M., Prasad T. G., Gauns M., Ramaiah N., de Souza S. N., Sardesai S., and Madhupratap M. "Why is the Bay of Bengal less productive during summer monsoon compared to the Arabian Sea?" *Geophysical Research Letters* **29**(24), 88-1 (2002).
- Prasanna Kumar S., Nuncio M., Ramaiah N., Sardesai S., Narvekar J., Fernandes V., and Paul J. T., "Eddy-mediated biological productivity in the Bay of Bengal during fall and spring intermonsoons", *Deep Sea Research Part I: Oceanographic Research Papers*, **54**(9), 1619-1640 (2007).
- Prell, W.L., Van Campo, E., "Coherent response of Arabian Sea upwelling and pollen transport to late Quaternary monsoonal winds", *Nature*, **323**, 526-528 (1986).

- Prell W. L., Hutson W. H., Williams D. F., Be A. W. H., Geitzenauer K., and Molfino B., "Surface circulation of the Indian Ocean during the last glacial maximum, approximately 18,000 yr B.P", *Quaternary Research* 14(3), 309-336 (1980).
- Prell, W.L. and Kutzbach, J.E., "Monsoon variability over the past 150,000 years", *Journal of Geophysical Research*, 92(D7), 8411-8425 (1987).
- Prell, W.L. and Kutzbach, J.E., "Sensitivity of the Indian monsoon to forcing parameters and implications for its evolution", *Nature*, 360, 647-652 (1992).
- Qasim, S.Z., "Biological productivity of the Indian Ocean", *Indian Journal of Marine Sciences*, 122-137 (1977).
- Qasim, S.Z., 1982, "Oceanography of the northern Arabian Sea", *Deep Sea Research Part A. Oceanographic Research Papers*, 29(9): 1041-1068.
- Rai, S.K. and Singh, S.K., "Temporal variation in Sr and $^{87}\text{Sr}/^{86}\text{Sr}$ of the Brahmaputra:Implications for annual fluxes and tracking flash floods through chemical and isotope composition", *Geochemistry Geophysics Geosystems*, 8(8), doi:10.1029/2007GC001610 (2007).
- Ramamurty, M. and Shrivastava, P.C., "Clay minerals in the shelf sediments of the northeastern part of the Bay of Bengal", *Marine Geology*, 33, M21-M32 (1979).
- Ramaswamy V. and Nair R. R., "Fluxes of material in the Arabian Sea and Bay of Bengal - sediment trap studies", *Proceedings - Indian Academy of Sciences, Earth & Planetary Sciences* 103(2), 189-210 (1994).
- Ramaswamy V., Nair R. R., Manganini S., Haake B., and Ittekkot V., "Lithogenic fluxes to the deep Arabian sea measured by sediment traps", *Deep Sea Research Part A. Oceanographic Research Papers*, 38(2), 169-184 (1991).
- Ramaswamy, V., Rao, P. S., Rao, K. H., Srinivasa Rao, S.T.N. and Raiker, V., "Tidal influence on suspended sediment distribution and dispersal in the northern Andaman Sea and Gulf of Martaban", *Marine Geology*, 208(1), 33-42 (2004).
- Ramaswamy, V., Vijay Kumar, B., Parthiban, G., Ittekkot, V. and Nair, R.R., "Lithogenic fluxes in the Bay of Bengal measured by sediment traps", *Deep Sea Research II*, 44(5), 793-810 (1997).
- Ramesh, R., Ramanathan, A.L., Ramesh, S., Purvaja, R. and Subramanian, V., "Distribution of rare earth elements and heavy metals in the surficial sediments of the Himalayan river system", *Geochemical Journal*, 34, 295-319 (2000).
- Rao, P.S., Ramaswamy, V. and Thwin, S., "Sediment texture, distribution and transport on the Ayeyarwady continental shelf, Andaman Sea", *Marine Geology*, 216, 239-247 (2005).

- Rao, V.P. and Nath, B.N., "Nature, distribution and origin of clayminerals in grain size fractions of sediments from manganese nodule field, Central Indian Ocean Basin" *Indian Journal of Marine Science*, 17, 202-207 (1988).
- Rao, V. P., "Clay mineral distribution in the continental shelf sediments from Krishna to Ganges River mouth, east coast of India", *Indian Journal of Marine Sciences*, 20(1), 7-12 (1991).
- Rao, V.P. and Kessarkar, P.M., "Geomorphology and Geology of the Bay of Bengal and the Andaman Sea", *The Indian Ocean : A Perspective – Volume 2*, Ed. R.S. Gupta and E. Desa, A.A. Balkema Publishers, 817-868 (2001)
- Rashid, H., Flower, B.P., Poore, R.Z. and Quinn, T.M., "A ~25 ka Indian Ocean monsoon variability record from the Andaman Sea", *Quaternary Science Reviews*, 26, 2586-2597 (2007).
- Raymo, M.E., W.F. Ruddiman, and P.N. Froelich, "Influence of late Cenozoic mountain building on ocean geochemical cycles", *Geology*, 16, 649-653 (1988).
- Reichart G. J., den Dulk M., Visser H. J., van der Weijden C. H., and Zachariasse W. J., "A 225 kyr record of dust supply, paleoproductivity and the oxygen minimum zone from the Murray Ridge (northern Arabian Sea)", *Palaeogeography, Palaeoclimatology, Palaeoecology*, 134(1-4), 149-169 (1997).
- Rengarajan, R., Sarin, M.M., Somayajulu, B.L.K. and Suhasini, R., "Mixing in the surface waters of the western Bay of Bengal using ^{228}Ra and ^{226}Ra ", *Journal of Marine Research*, 60, 255-279 (2002).
- Rhein, M., L. Stramma, and O. Plahn, Tracer signals of the intermediate layers of the Arabian Sea, *Geophys. Res. Lett.*, 24, 2561–2564, 1997.
- Rixen, T., Ittejot, V., Haake-Gaye, B. and Schafer, P., "The influence of the SW monsoon on the deep-sea organic carbon cycle in the Holocene", *Deep-Sea Research II*, 47, 2629-2651 (2000).
- Rodolfo, K.S., "Sediments of the Andaman Basin, Northeastern Indian Ocean", *Marine Geology*, 7, 371-402 (1969).
- Roonwal, G.S., Glasby, G.P. and Chugh, R., "Mineralogy and geochemistry of surface sediments from the Bengal Fan, Indian Ocean", *Journal of Asian Earth Sciences*, 15(1), 33-41 (1997).
- Sarin, M.M., Borole, D.V. and Krishnaswami, S., "Geochemistry and geochronology of sediments from the Bay of Bengal and the equatorial Indian Ocean", *Proc. Indian Acad. Sci.*, 88A(2), 131-154 (1979).

- Sarin, M.M., Krishnaswami, S., Dilli, K., Somayajulu, B.L.K. and Moore, W.S., "Major ion chemistry of the Ganga-Brahmaputra river system: Weathering processes and fluxes to the Bay of Bengal", *Geochimica et Cosmochimica Acta*, 53, 997-1009 (1989).
- Sarkar, A., Ramesh, R., Bhattacharya, S.K. and Rajagopalan, G. "Oxygen isotope evidence for stronger winter monsoon current during the last glaciation" *Nature* 343, 549–551 (1990).
- Sarkar, A., Bhattacharya, S.K. and Sarin, M.M., "Geochemical evidence for anoxic deep water in the Arabian Sea during the last glaciation", *Geochimica et Cosmochimica Acta*, 57, 1009-1016 (1993).
- Sarkar, A., Ramesh, R., Somayajulu, B.L.K., Agnihotri, R., Jull, A.J.T. and Burr, G.S., "High resolution Holocene monsoon record from the eastern Arabian Sea", *Earth and Planetary Science Letters*, 171, 209-218 (2000).
- Sarma, V.V. S.S., Kuma, M.D. and George M.D., "The central and eastern Arabian Sea as a perennial source of atmospheric carbon dioxide", *Tellus*, Sec. B, 50, 179-184 (1998).
- Schafer P. and Ittekkot V., "Seasonal variability of $\delta^{15}\text{N}$ in settling particles in the Arabian sea and its palaeogeochemical significance", *Naturwissenschaften*, 80, 511-513 (1993).
- Schenau S. J., Prins M. A., De Lange G. J., and Monnin C., "Barium accumulation in the Arabian Sea: controls on barite preservation in marine sediments", *Geochimica et Cosmochimica Acta*, 65(10), 1545-1556 (2001).
- Schmitz, B., "Barium, equatorial high productivity, and the northward wandering of the Indian continent", *Paleoceanography*, 2, 63-77 (1987).
- Schott, F.A., and McCreary, J.P. Jr., "The monsoon circulation of the Indian Ocean", *Progress in Oceanography*, 51, 1-123 (2001).
- Schulz, H., von Rad, U. and Erlenkeuser, H., "Correlation between Arabian Sea and Greenland climate oscillations of the past 100,000 years", *Nature*, 393, 54-57 (1998).
- Schulz M. and Mudelsee M., "REDFIT: Estimating red-noise spectra directly from unevenly spaced paleoclimatic time series", *Comp. Geosci.*, (2000).
- Schulz M. and Stattegger K., "SPECTRUM: Spectral analysis of unevenly spaced paleoclimatic time series", *Computers and Geosciences*, 23, 929-945 (1997).
- Schumm S.A. and David K. Rea, "Sediment yield from disturbed earth systems", *Geology*, 23(5), 391-394; DOI: 10.1130/0091-7613 (1995).
- Seeber, L., and V. Gornitz, "River profiles along the Himalayan arc as indicators of active tectonics" *Tectonophysics*, 92, 335-467, doi:10.1016/0040-1951(83)90201-9 (1983).

- SenGupta R., Moraes C., George M. D., Kureishy T. W., Noronha R. J., and Fondekar S. P., "Chemistry and hydrography of the Andaman Sea" In *Indian Journal of Marine Sciences*, **10**, 228-233 (1981).
- Sengupta et al., "In: Recent Geoscientific studies in the Bay of Bengal and Andaman Sea", *Geological Survey of India Special Publication*, **29**, 201-207 (1992).
- Shetye S. R., Shenoi S. S. C., Gouveia A. D., Michael G. S., Sundar D., and Nampoothiri G., "Wind-driven coastal upwelling along the western boundary of the Bay of Bengal during the southwest monsoon", *Continental Shelf Research*, **11**(11), 1397-1408 (1991).
- Shetye S. R., Gouveia A. D., Shenoi S. S. C., Sundar D., Michael G. S., and Nampoothiri G., "The western boundary current of the seasonal subtropical gyre in the Bay of Bengal", *Journal of Geophysical Research*, **98**(C1), 945-954 (1993).
- Shetye, S.R., Gouveia, A.D. and Shenoi, S.S.C., "Circulation and water masses of the Arabian Sea", *Proceedings - Indian Academy of Sciences, Earth & Planetary Sciences*, 107-123 (1994).
- Shetye S. R., Gouveia A. D., Shankar D., Shenoi S. S. C., Vinayachandran P. N., Sundar D., Michael G. S., and Nampoothiri G., "Hydrography and circulation in the western Bay of Bengal during the northeast monsoon", *Journal of Geophysical Research C: Oceans*, **101**(C6), 14011-14025 (1996).
- Siddiquie, H.N., "Recent sediments of the Bay of Bengal", *Marine Geology*, **5**, 249-291 (1967).
- Singh S. K., Trivedi J. R., Pande K., Ramesh R., and Krishnaswami S., "Chemical and Strontium, Oxygen, and Carbon Isotopic Compositions of Carbonates from the Lesser Himalaya: Implications to the Strontium Isotope Composition of the Source Waters of the Ganga, Ghaghara, and the Indus Rivers", *Geochimica et Cosmochimica Acta*, **62**(5), 743-755 (1998).
- Singh, I. B., Sharma, S., Sharma, M., Srivastava, P. Rajagopalan, G., "Evidence of human occupation and humid climate of 30 ka in the alluvium of southern Ganga Plain." *Current Science*, **76**, 1022-1026 (1999).
- Singh, S.K. and France-Lanord, C., "Tracing the distribution of erosion in the Brahmaputra watershed from isotopic compositions of stream sediments", *Earth and Planetary Science Letters*, **202**, 645-662 (2002).
- Singh S. K., Reisberg L., and France-Lanord C., "Re-Os isotope systematics of sediments of the Brahmaputra River system", *Geochimica et Cosmochimica Acta* **67**(21), 4101-4111 (2003).

- Singh S. K., Kumar A., and France-Lanord C., "Sr and 87Sr/86Sr in waters and sediments of the Brahmaputra river system: Silicate weathering, CO₂ consumption and Sr flux", *Chemical Geology*, 234(3-4), 308-320 (2006).
- Singh, S. K., S. Rai, and S. Krishnaswami, "Sr and Nd isotopes in river sediments from the Ganga Basin: Sediment Provenance and Spatial Variability in Physical Erosion", *Journal of Geophysical Research*, doi:10.1029/2007JF000909, in press (2008).
- Sinha, A., Cannariato, K.G., Stott, L.D., Li, C.H., You, C.F., Cheng, H., Edwards, R.L., Singh, I.B., "Variability of Southwest Indian summer monsoon precipitation during the Bølling-Ållerød", *Geology*, 33, 813–816 (2005).
- Sirocko, F., Sarnthein, M., Erlenkeuser, Land, H., Arnold, M., Duplessy, J.C., "Century-scale events in monsoonal climate over the past 24,000 years", *Nature*, 364, 321–324 (1993).
- Sirocko F., Garbe-Schonberg D., McIntyre A., and Molfino B., "Teleconnections between the subtropical monsoons and high-latitude climates during the last deglaciation", *Science*, 272, 526-529 (1996).
- Sirocko, F., Schonberg, D.G. and Devey, C., " Processes controlling trace element geochemistry of Arabian Sea sediments during the last 25,000 years", *Global and Planetary Change*, 26, 217-303 (2000).
- Skornyakova, N.S., "Dispersed iron and manganese in Pacific sediments", In: *Tikhii Okean*, t. VI (The Pacific Ocean, 6), Mauka, Moscow (1970).
- Somayajulu B.L.K., Bhushan, R., Sarkar, A., Burr, G.S. and Jull, A.J.T., "Sediment deposition rates on the continental margins of the eastern Arabian Sea using ²¹⁰Pb, ¹³⁷Cs and ¹⁴C", *The Science of the Total Environment*, 237/238 , 429-429 (1999).
- Somayajulu, B.L., Yadav, D.N. and Sarin, M.M., "Recent sedimentary records from the Arabian Sea", *Proceedings of Indian Academy of Sciences (Earth Planetary Sciences)*, 103(2), 315-327 (1994).
- Somayajulu, B.L.K., Bhushan, R. and Narvekar, P.V., "Δ¹⁴C, ΣCO₂ and Salinity of the Western Indian Ocean deep waters : Spatial and Temporal variations", *Geophysical Research Letters*, 26(18), 2869-2872 (1999).
- Somayajulu, B.L.K., Martin, J.M., Eisma, D., Thomas, A.J., Borole, D.V. and Rao, K.S., "Geochemical studies in the Godavari, India", *Marine Chemistry*, 43, 83-93 (1993).
- Somayajulu, B.L.K., Rengarajan, R. and Jani, R.A., "Geochemical cycling in the Hooghly estuary, India", *Marine Chemistry*, 79, 171-183 (2002).
- Srivastava, P., Juyal, N., Singhvi, A.K., Wasson, R.J. and Bateman, D., "Luminescence chronology of river adjustment and incision of Quaternary sediments in the alluvial plain of Sabarmati River, north Gujarat, India", *Geomorphology* 36, 217-229 (2001).

- Stoykova, D.A., Y.Y. Shopov, D. Garbeva, L.T. Tsankov, and C.J. Yonge, "Origin of the climatic cycles from orbital to sub-annual scales", *Journal of Atmospheric and Solar-Terrestrial Physics*, **70**, 293-302 (2008).
- Stuiver M. and Polach H. A., "Discussion: Reporting of ^{14}C data", *Radiocarbon*, **19**, 355-363 (1977).
- Stuiver M., " ^{14}C distribution in the Atlantic Ocean. Journal of Geophysical Research", **85(C5)**: 2711-2718 1980.
- Stuiver, M. and Ostlund, H.G., "GEOSECS Indian Ocean and Mediterranean radiocarbon", *Radiocarbon*, **1-29** (1983).
- Stuiver, M., Braziunas, T.F., Becker, B. and Kromer, B., "Climatic, solar, oceanic, and geomagnetic influences on late-glacial and Holocene atmospheric $^{14}\text{C}/^{12}\text{C}$ change", *Quaternary Research*, **35**, 1-24 (1991).
- Stuiver, M., P.M. Grootes, and T.F. Braziunas., "The GISP2 $\delta^{18}\text{O}$ climate record of the past 16,500 years and the role of the sun, ocean and volcanoes", *Quaternary Research* **44**, 341-354 (1995).
- Stuiver M., Reimer P. J., Bard E., Beck J. W., Burr G. S., Hughen K. A., Kromer B., McCormac G., Van Der Plicht J., and Spurk M., "INTCAL98 radiocarbon age calibration, 24,000-0 cal BP", *Radiocarbon*, **40**, 1041-1083 (1998a).
- Stuiver M., Reimer P. J., and Braziunas T. F., "High-precision radiocarbon age calibration for terrestrial and marine samples", *Radiocarbon*, **40**, 1127-1151 (1998b).
- Stummeyer, J., Marchig, V. and Knabe, W., "The composition of suspended matter from Ganges-Brahmaputra sediment dispersal system during low sediment transport season", *Chemical Geology*, **185**, 125-147 (2002).
- Subramanian, V., "Mineralogical input of suspended matter by Indian rivers into the adjacent areas of the Indian Ocean", *Marine Geology*, **36**, M29-M34 (1980).
- Subramanian, V., Van'T Dack, L. and Van Grieken, R., "Chemical composition of river sediments from the Indian sub-continent", *Chemical Geology*, **48**, 271-279 (1985).
- Taylor, S.R. and McLennan, S.M., "The Continental Crust: its Composition and Evolution", Blackwell Scientific Publications, Oxford. 312pp (1985).
- Thamban, M., Rao, V.P. and Schneider R.R. and Grootes, P.M., "Glacial to Holocene fluctuations in hydrography and productivity along the southwestern continental margin of India", *Palaeogeography Palaeoclimatology Palaeoecology*, **165**, 113-127 (2001).
- Thamban, M., Rao, V.P. and Schneider R.R., "Reconstruction of late Quaternary monsoon oscillations based on clay mineral proxies using sediment cores from the western margin of India", *Marine Geology*, **186**, 527-539 (2002).

- Timothy, D. and S. Calvert, "Systematics of Variations in Excess Al and Al/Ti in Sediments from the Central Equatorial Pacific", *Paleoceanography*, **13**(2), 127-130 (1998).
- Tiwari, M., Ramesh, R., Bhushan, R., Somayajulu, B.L.K., Jull, A.J.T. and Burr, G.S., "Paleoproductivity variations from the Equatorial Arabian Sea, implications to east African and Indian summer rainfalls and the El Nino frequency", *Radiocarbon*, **48**(1), 17-29 (2006).
- Tiwari, M., Ramesh, R., Somayajulu, B.L.K., Jull, A.J.T., and Burr, G.S., "Early deglacial (~19-17 ka) strengthening of the northeast monsoon", *Geophysical Research Letters*, **32**, L19712, 1-4 (2005).
- Toggweiler, J.R., Dixon, K. and Bryan, K., "Simulations of radiocarbon in a coarse-resolution world ocean model. 1. Steady state pre-bomb distributions", *Journal of Geophysical Research*, 8217-8242 (1989a).
- Toggweiler, J.R., Dixon, K. and Bryan, K., "Simulations of radiocarbon in a coarse-resolution world ocean model. 2. Distributions of bomb-produced carbon 14", *Journal of Geophysical Research*, 8243-8264 (1989b).
- Tomczak, M. and J.S. Godfrey, "Regional Oceanography : An Introduction", *Pergamon*, 422pp (1994).
- Turekian, K.K. and Wedepohl, K.H., "Distribution of the Elements in some major units of the Earth's crust", *Geological Society of America Bulletin* **72**: 175-192 (1961).
- Unger, D., Ittekkot, V., Schafer, P., Tiemann, J. and Reschke, S., "Seasonality and interannual variability of particle fluxes to the deep Bay of Bengal: Influence of riverine input and oceanographic processes", *Deep-Sea Research II*, **50**, 897-923 (2003).
- Van der Weijden C. H., Reichart G.-J., and van Os B. J. H., "Sedimentary trace element records over the last 200 kyr from within and below the northern Arabian Sea oxygen minimum zone", *Marine Geology*, **231**(1-4), 69-88 (2006).
- Vance, D., Bickle, M., Ivy-Ochs, S. and Kubik, P.W., "Erosion and exhumation in the Himalaya from cosmogenic isotope inventories of river sediments", *Earth and Planetary Science Letters*, **206**, 273-288 (2003).
- Venkatachala, B.S.; Rajagopalan, G.; Kar, R.K.; Rajnikanth, A., "Palynological studies and ^{14}C dating of a gravity core from the seabed west of Narcondam Island in the Andaman Sea", *Geological Survey India Special Publication*, **29**, 107-110 (1992).
- Walter, H.J., Hegner, E., Diekmann, B., Kuhn, G. and Rutgers van der Loeff, M.M., "Provenance and transport of terrigenous sediment in the South Atlantic Ocean and their relations to glacial and interglacial cycles: Nd and Sr isotopic evidence", *Geochimica et Cosmochimica Acta*, **64**(22), 3813-3827 (2000).

- Wanninkhof, R., "Relationship between wind speed and gas exchange over the ocean", *Journal of Geophysical Research*, 7373-7382 (1992).
- Wanninkhof, R., Ledwell, J.R. and Broecker, W.S., "Gas exchange - wind speed relation measured with sulfur hexafluoride on a lake", *Science*, 1224-1226 (1985).
- Weber, M.E., Wiedicke, M.H., Kudrass, H.R., Hubscher, C. and Erlenkeuser, H., "Active growth of the Bengal Fan during sea-level rise in highstand", *Geology*, 25(4), 315-318 (1997).
- Weber, M.E., Wiedicke-Hombach, M., Kudrass, H.R. and Erlenkeuser, H., "Bengal Fan sediment transport activity and response to climate forcing inferred from sediment physical properties", *Sedimentary Geology*, 155, 361-381 (2003).
- Wedepohl, 1960, "Minor element investigations of Atlantic bottom samples: geochemical comparison of pelitic sediments from different oceans.", *Geochimica et Cosmochimica Acta*, 18(3-4), 200-231 (1960).
- Weldeab, S., Emeis, K-C., Hemleben, C. and Siebel, W., "Provenance of lithogenic surface sediments and pathways of riverine suspended matter in the Eastern Mediterranean Sea: Evidence from $^{143}\text{Nd}/^{144}\text{Nd}$ and $^{87}\text{Sr}/^{86}\text{Sr}$ ratios", *Chemical Geology*, 186, 139-149 (2002).
- Wijayananda N. P. and Cronan D. S., "The geochemistry and mineralogy of marine sediments from the eastern Indian Ocean", *Marine Geology* 117(1-4), 275-285 (1994).
- Winkler, G., Anderson, R. F. and Schlosser, P. "Equatorial Pacific productivity and dust flux during the mid-Pleistocene climate transition", *Paleoceanography* 20, PA4025, doi:10.1029/2005PA001177 (2005).
- Wyrtki, K., "Oceanographic Atlas of the International Indian Ocean Expedition", 531pp, (1971).
- Wyrtki, K., "Physical Oceanography of the Indian Ocean", *The Biology of the Indian Ocean*, B. Zeitzschel (ed.), Chapman and Hall Ltd., 19-36 (1973).
- Yadav, D.N., Sarin, M.M. and Somayajulu, B.L.K., "Western continental margins of India: Are they sink or source for trace elements in the Arabian Sea?", *Oceanography of the Indian Ocean*, Ed. B.N. Desai, Oxford & IBH Publishing Co. Pvt. Ltd., 359-367 (1992).
- Yadav D. N., "Manganese mobilization from the Western Continental margin of India", *Current Science*, 71, 900-905 (1996).
- Zonneveld, K.A.F., Ganssen, G., Troelstra, S., Versteegh, G.J.M. and Visscher, H., "Mechanisms forcing abrupt fluctuations of the Indian ocean summer monsoon during the last deglaciation", *Quaternary Science Reviews*, 16(2), 187-201 (1997).