

Madhav Krishna Murari

List of Publications (Updated Mar 2018)

[2018]

Murari, M.K., Kreutzer, S., Fuchs, M., 2018. Further Investigations on IR-RF: Dose Recovery and Correction. *Radiation Measurements (Under review, will be available soon)*.

Orr, E.N., Owen, L.A., Saha, S., Caffee, M.W., **Murari, M.K.**, 2018. Quaternary glaciation of the Lato Massif, Zaskar Range of the NW Himalaya. *Quaternary Science Reviews* 183, 140-156.

[2017]

Kreutzer, S., **Murari, M.K.**, Frouin, M., Fuchs, M., Mercier, N., 2017. Always remain suspicious: a case study on tracking down a technical artefact while measuring IR-RF. *Ancient TL* 35, 20-30.

Bergen, K.J., Shaw, J.H., Leon, L.A., Dolan, J.F., Pratt, T.L., Ponti, D.J., Morrow, E., Barrera, W., Rhodes, E.J., **Murari, M.K.**, Owen, L.A., 2017. Accelerating slip rates on the puente hills blind thrust fault system beneath metropolitan Los Angeles, California, USA. *Geology* 45, 227-230.

Orr, E.N., Owen, L.A., Murari, M.K., Saha, S., Caffee, M.W., 2017. The timing and extent of Quaternary glaciation of Stok, northern Zaskar Range, Transhimalaya, of northern India. *Geomorphology* 284, 142-155.

[2016]

Bhatt, N., **Murari, M.K.**, Ukey, V., Prizomwala, S.P. and Singhvi, A.K. 2016 Geological evidences of extreme waves along the Gujarat coast of western India. *Natural Hazards*, 1-20.

Saha, S., Sharma, M.C., **Murari, M.K.**, Owen, L.A., Caffee, M.W., 2016. Geomorphology, sedimentology and minimum exposure ages of streamlined subglacial landforms in the NW Himalaya, India. *Boreas* 45, 284–303.

[2015]

Counts, R.C., **Murari, M.K.**, Owen, L.A., Mahan, S.A., Greenan, M., 2015. Late Quaternary chronostratigraphic framework of terraces and alluvium along the lower Ohio River, southwestern Indiana and western Kentucky, USA. *Quaternary Science Reviews* 110, 72–91.

Kadlec, J., Kocurek, G., Mohrig, D., Shinde, D.P., **Murari, M.K.**, Varma, V., Stehlík, F., Beneš, V., Singhvi, A.K., 2015. Response of fluvial, aeolian, and lacustrine systems to late Pleistocene to Holocene climate change, Lower Moravian Basin, Czech Republic. *Geomorphology* 232, 193–208.

Tankersley, K.B., **Murari, M.K.**, Crowley, B.E., Owen, L.A., Storrs, G.W., Mortensen, L., 2015. Quaternary chronostratigraphy and stable isotope paleoecology of Big Bone Lick, Kentucky, USA. *Quaternary Research* 83, 479–487.

[2014]

Lee, S.Y., Seong, Y.B., Owen, L.A., **Murari, M.K.**, Lim, H.S., Yoon, H. II, Yoo, K.-C., 2014. Late Quaternary glaciation in the Nun-Kun massif, northwestern India. *Boreas* 43, 67–89.

Longbottom, T.L., Townsend-Small, A., Owen, L.A., **Murari, M.K.**, 2014. Climatic and topographic controls on soil organic matter storage and dynamics in the Indian Himalaya: Potential carbon cycle–climate change feedbacks. *CATENA* 119, 125–135.

Murari, M.K., Owen, L.A., Dortch, J.M., Caffee, M.W., Dietsch, C., Fuchs, M., Haneberg, W.C., Sharma, M.C., Townsend-Small, A., 2014. Timing and climatic drivers for glaciation across monsoon-influenced regions of the Himalayan–Tibetan orogen. *Quaternary Science Reviews* 88, 159–182.

[2012]

Jayangondaperumal, R., **Murari, M.K.**, Sivasubramanian, P., Chandrasekar, N., Singhvi, A.K., 2012. Luminescence dating of fluvial and coastal red sediments in the SE coast, India, and implications for paleoenvironmental changes and dune reddening. *Quaternary Research* 77, 468–481.

Kananen, B.E., Brant, A.T., Buchanan, D.A., **Murari, M.K.**, McClory, J.W., 2012. Analysis of neutron induced defects in silver doped lithium tetraborate, in: *IEEE Nuclear Science Symposium Conference Record*. pp. 427–430.

Wesnousky, S.G., Aranguren, R., Rengifo, M., Owen, L.A., Caffee, M.W., **Murari, M.K.**, Pérez, O.J., 2012. Toward quantifying geomorphic rates of crustal displacement, landscape development, and the age of glaciation in the Venezuelan Andes. *Geomorphology* 141–142, 99–113.

[2011]

Brant, A.T., Kananen, B.E., **Murari, M.K.**, McClory, J.W., Petrosky, J.C., Adamiv, V.T., Burak, Y. V, Dowben, P.A., Halliburton, L.E., 2011. Electron and hole traps in Ag-doped lithium tetraborate (Li₂B₄O₇) crystals. *Journal of Applied Physics* 110,

Nair, R.R., **Murari, M.K.**, Vijaya Lakshmi, C.S., Buynevich, I., Goble, R.J., Srinivasan, P., Murthy, S.G.N., Trivedi, D., Kandpal, S.C., Hussain, S.M., Sengupta, D., Singhvi, A.K., 2011. Subsurface signatures and timing of extreme wave events along the southeast Indian coast. *Journal of Earth System Science* 120, 873–883.

[2009]

Biswas, R.H., **Murari, M.K.**, Singhvi, A.K., 2009. Dose-dependent change in the optically stimulated luminescence decay of Al₂O₃:C. *Radiation Measurements* 44, 543–547.

[2007]

Murari, M.K., Achyuthan, H., Singhvi, A.K., 2007. Luminescence studies on the sediments laid down by the December 2004 tsunami event: Prospects for the dating of palaeo tsunamis and for the estimation of sediment fluxes. *Current Science* 92, 367–371.

[2006]

Mayya, Y.S., Morthekai, P., **Murari, M.K.**, Singhvi, A.K., 2006. Towards quantifying beta microdosimetric effects in single-grain quartz dose distribution. *Radiation Measurements* 41, 1032–1039.

List of Abstracts and presentations in Conferences

- [28] **Murari, M.K.**, Kreutzer, S., Fuchs, M., 2017. Progress made towards Infrared Radiofluorescence (IR-RF) dating method. German LED Meeting, Bayreuth, Germany, (Oct, 27-29).
- [27] **Murari, M.K.**, Kreutzer, S., Fuchs, M., 2017. Recent developments and progress towards establishing Infrared Radiofluorescence (IR-RF) as a dating method. 15th International Conference on Luminescence and Electron Spin Reasonance Dating, Cape Town, South Africa, (Sep 11-15).
- [26] Kreutzer, S., Frouin, M., **Murari, M.K.**, Fuchs, M., Mercier, N., 2017. IR-RF dating on K-feldspar: tracing environmental changes in the Middle Pleistocene. European Geosciences Union (EGU).
- [25] **Murari, M.K.**, Frouin, M., Friedrich, J., Kreutzer, S., King, G., Klasen, N., Lauer, T., Mercier, N., Richter, D., Schmidt, C., Tsukamoto, S. and Fuchs, M. 2016. Further steps to establish Infrared radiofluorescence (IR-RF) as a dating method. *UK Luminescence and ESR Meeting (UKLUM 2016)*
- [24] **Murari, M.K.**, Kumar, V. and Singhvi, A.K. 2015. Comparison of Component specific palaeodose with those from SAR protocol:. *4th Asia Pacey Luminescence and Electron Spin Resonance Dating (APLED 2015) Conf., Adelaide, Australia*
Asia Pacey Luminescence and Electron Spin Resonance Dating(APLED 2015) Conf., Adelaide, Australia
- [23] Kumar, V., **Murari, M.K.** and Singhvi., A.K. 2015. A GUI package for the deconvolution OSL components. *4th Asia Pacey Luminescence and Electron Spin Resonance Dating (APLED 2015) Conf., Adelaide, Australia*
- [22] Tyagi, A.K., **Murari, M.K.**, Kumar, D., Singh, R.N. and Singhvi1, A.K. 2014. Resetting of Luminescence in Sand Dykes Due to Viscous Heating: Theoretical Considerations and Experimental Evidences. *14th International Conference on Luminescence and Electron Spin Resonance Dating*
- [21] Bergen, K.J., Shaw, J.H., Leon, L.A., Dolan, J.F., Pratt, T.L., Ponti, D.J., Barrera, W., Rhodes, E.J., **Murari, M.K.** and Owen, L.A. 2014. Continuity of slip rates over various time scales on the Puente Hills Blind-thrust Fault, Los Angeles, California. *Geophysical Research Abstracts Vol. 16, EGU2014-13126*
- [20] Jason M. Dortch, P.H., Lewis A. Owen, Madhav K. Murari, Marc W. Caffee. 2013. Orogen, Patterns of glaciation and topographic hypsometry across semi-arid western Himalayan-Tibetan. *AGU Fall Meeting Abstracts*
- [19] **Murari, M.K.**, Count, R. and Owen, L.A. 2012. Defining the timing and rates of floodplain deposition controlled by climate and tectonics along the central Ohio River. *8th New World Luminescence Dating Workshop, University of California, Los Angeles, USA*

- [18] Kananen, B.E., Brant, A.T., Buchanan, D.A., **Murari, M.K.** and McClory, J.W. 2012. Analysis of neutron induced defects in silver doped lithium tetraborate. *IEEE Nuclear Science Symposium Conference Record*
- [17] Counts, R.C., **Murari, M.K.** and Owen, L.A. 2012. Optically stimulated luminescence chronology of terraces of the lower Ohio River valley: implications for quaternary climate change and neotectonic deformation. *Geological Society of America Abstracts*
- [16] Barrera, W.A., Rhodes, E.J., **Murari, M.K.**, Owen, L.A., Lawson, M.J., Bergen, K.J., Dolan, J.F. and Shaw, J.H. 2012. Luminescence dating inter-comparison for sediments associated with the Puente Hills Blind-Thrust System recovered from cores. *8th New World Luminescence Dating Workshop, University of California, Los Angeles, USA*
- [15] **Murari, M.K.**, Domack, E.W., Hess, D.P. and Owen, L.A. 2011. Timing of Esker and Dune Formation at the Eastern end of Oneida Lake, New York State, defined by Optically stimulated Luminescence Dating . in GSA Northeastern/North-Central Section Meeting, edited, Pittsburgh, Pennsylvania, USA. *GSA Northeastern/North-Central Section Meeting, Pittsburgh, Pennsylvania, USA.*
- [14] Longbottom, T.L., Owen, L., Caffee, M.W., Lafayette, W. and **Murari, M.K.** 2011. Quaternary History of Glacier Morphology and Landform Development in Garhwal And Lahul Himaalaya. *The Geological Society of America, Minneapolis*
- [13] Domack, E.W., Hess, D.P., Owen, L.A., **Murari, M.K.** and Rayne, T. 2011. Landforms and surface geology of eastern Oneida lake and oneida county, New York: New insights from matching bathymetry with lidar topography. *GSA Northeastern/North-Central Section Meeting, Pittsburgh, Pennsylvania, USA.*
- [12] Thomas, J.V., Anupama, K., **Murari, M.K.**, Sangode, S.J., Balakrishnan, S., Singh, P., Chakravorty, S., Prasad, S., Juyal, N. and Singhvi, A.K. 2009. Dating rainfed reservoir sediments: A multi proxy case study from south India. *2nd Asia Pacific Luminescence and Electron Spin Resonance Dating(APLED) Conference. Ahmedabad, India*
- [11] Singh, R.N., **Murari, M.K.**, Singhvi, A.K. and Singhvi., A.K. 2009. Flash heating in sand dykes: A possible Zeroing mechanism for OSL dating. *2nd Asia Pacific Luminescence and Electron Spin resonance Dating (APLED) Conference. Ahmedabad, India*
- [10] Shinde, D.P., **Murari, M.K.**, Kadlec, J., Kocurek, G., Svetlik, I. and Singhvi, A.K. 2009. Dating of floodplain deposits in Straznicke Pomoravi area (Czech Republic). *2nd Asia Pacific Luminescence and Electron Spin resonance Dating (APLED) Conference. Ahmedabad, India*
- [09] **Murari, M.K.**, Singh, R.N. and Singhvi, A.K. 2009. Flash heating of faults and resetting of TL clocks in shallow earthquakes. *2nd Asia Pacific Luminescence and Electron Spin resonance Dating (APLED) Conference. Ahmedabad, India*
- [08] Morthekai, P., Jain, M., **Murari, M.K.**, Singhvi, A.K. and Cunha, P. 2009. On dynamic equilibrium of trapped charges in fading basaltic samples. *2nd Asia Pacific Luminescence and Electron Spin resonance Dating (APLED) Conference. Ahmedabad, India*

- [07] Jayangondaperumal, R., **Murari, M.K.**, Sivasubramaniam, P., Singhvi, A.K. and Chandrasekar, N. 2009. Luminescence dating of Teri Red Sand Dune in the SE coast, India: Implications of early-mid Holocene environmental changes and dune reddening. *2nd Asia Pacific Luminescence and Electron Spin resonance Dating (APLED) Conference. Ahmedabad, India*

- [06] Bhatt, N., Ukey, V., **Murari, M.K.** and Singhvi., A.K. 2009. Geological indicators of palaeo-tsunami along Gujarat coast, western India: OSL chronology. *2nd Asia Pacific Luminescence and Electron Spin resonance Dating (APLED) Conference. Ahmedabad, India*

- [05] **Murari, M.K.** and Singhvi, A.K. 2008. Efficacy of component specific analysis of Optically Stimulated Luminescence decay in estimation of paleodose. *3rd International Conference on Luminescence and Its Applications (ICLA)*

- [04] Biswas, R.H., **Murari, M.K.** and Singhvi, A.K. 2008. Component specific Alpha efficiency of Al₂O₃:C, Quartz and Feldspar". (Submitted to LED 2008). *12th International Conference on Luminescence and ESR Dating, Beijing, China*

- [03] Singhvi, A.K., Mayya, Y.S., Sastry, M.D., Juyal, N., Morthekai, P., **Murari, M.K.**, Nagar, Y.C., Jaiswal, M.K., Stokes, S. and Jain, V. 2006. Some Unexplored Methodological Aspects and Some New Applications of Luminescence Dating. *Proceedings of the 4th New World Luminescence Dating and Dosimetry Workshop, Denver, Colorado, May 31 June 2, 2006*

- [02] **Murari, M.K.**, Tyagi, A.K., Nagar, Y.C. and Singhvi, A.K. 2006. Quantitative studies of cross-talk of Riso and Daybreak OSL readers. *Asia-Pacific Conference on Luminescence Dating (APLED), Hongkong, China*

- [01] **Murari, M.K.** and Singhvi, A.K. 2006. Component Specific paleodose estimation in optically stimulated luminescence dating: Methodology, Applications and Implications (Oral Presentation). *Asia-Pacific Conference on Luminescence Dating (APLED), Hongkong, China*

APLED 2009 Conference Book Compiled and Edited

- [01] **Murari, M.K.**, Morthekai, P., Chauhan, N., Biswas, R.H., Shinde, D.P., Nag, K. and Chauhan, P. 2009. 2nd Asia Pacific Conference on Luminescence and Electron Spin Resonance Dating Abstract Book. Compiled and Edited.

Workshops Organized

- [04] **3rd IR-RF Workshop 2018:** IR-RF state of art: Discussion on progress made so far toward establishing IR-RF as a dating method. *Max Planck Institute for Evolutionary Anthropology (MPI EVA), Leipzig, Germany (Feb, 26-28)*
- [03] **2nd IR-RF Workshop 2017:** IR-RF state of art: Discussion on progress made so far toward establishing IR-RF as a dating method. *University of Bordeaux Montaigne, France, (May, 02-04)*
- [02] **1st IR-RF Workshop 2016:** IR-RF state of the art: Discussion on further progress towards IR-RF applicability *Raulschholzhausen, JLU, University of Giessen, Germany, (Mar, 13-15)*
- [01] **OSL Workshop 2014:** Advance quaternary geochronology course in one week. *University of Cincinnati, Cincinnati, USA*