Origin and evolution of the Himalayan mountain belt has profound impact on reshaping the
continental morphology, influencing the ocean biogeochemistry and global climate change. It
established the monsoon system in the Indian continent and is responsible for transporting large
amount of dissolved and particulate material to the adjacent ocean thereby influencing the global
climate. It has influenced the global climate by obstructing the direct water movement between
Indian and the Atlantic Oceans, by sequestering CO 2 from atmosphere due to chemical
weathering and organic carbon burial and by altering the biogeochemistry of the Indian Ocean by
supplying the nutrients and other elements to the Indian Ocean. Studies carried out on the river
systems of the Himalaya reveal the enhanced sequestration of CO 2 due to weathering and burial
of organic matters in the Indian Ocean, a net sink of CO 2 on longer time scale. Recent studies
carried out in the Indian Ocean suggest large input of trace elements and isotopes from the
erosional products from the Himalaya to the oceans. These supplies are contributing significantly
to the trace elements and isotope budgets such as Sr, Nd, Si, Mo isotopes of the Indian and
Global oceans. Studies carried out in the Ganga plain and in the Indian Ocean suggest that the
Himalaya has been impacting the global climate since its origin. The details will be discussed in
talk.