PREFACE
Dreams have always fascinated mankind. The earliest written mention of the dreams can be found in the Mandukiya Upanishads which are thought to be written around 11 century B.C. The great Hindu philosopher of the ancient times have defined the human behavior in three distinct states. The Jagrita or the waking state in which the mind is in contact with the external world, the Swapna or the state in which most of the dreams occurs, has been defined as the subtle state where the mind is in contact with the imaginary world. The third state has been defined as the susupta or the deep sleep state, the mind is in the state of Bliss. It was not until the early fifties that the formal discovery of rapid eye movement (REM) sleep as a distinct state (Aserinsky and Kleitman 1953, Dement and Kleitman 1957) was made. This revolutionized the understanding of sleep and sleep process. The two types of sleep were so different that sleep could no longer be viewed as a unitary phenomena and it was suggested that behavior of mammalian organism can be divided in three states: Awake, Non-REM sleep (NREM sleep) and REM sleep. REM sleep is a state in which most of our dreams occur and this fascinating characteristic captured the imagination of scientists as well as non-scientists. REM sleep is both unique and fundamentally paradoxical by the way in which it differs from and resembles both waking on one hand and NREM sleep on the other. REM sleep, identified by the simultaneous presence of EEG desynchronization, loss of activity in the antigravity muscles (postural muscle atonia), PGO spikes, periodic burst of rapid eye movement, muscle twitches, altered thermoregulatory, cardiovascular and respiratory control, decreased sympathetic tone, total silence of some neurons and increased activity in others, forms a mystifying group, an oddity when viewed in context of an integrated waking animal. Yet the ubiquity of this state in mammals and the compulsion to recover the lost bouts
of REM sleep indicates that nature regards REM sleep as normal and necessary. The discovery of subtle phenomenon as the rapid eye movement led to a clear definition of a new state and provided the impetus for the emergence of sleep research as an independent scientific discipline.