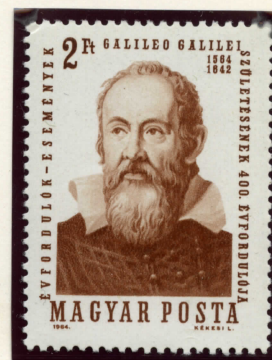




## THE HISTORY OF THE ATOMIC ERA, RADIOLOGY, AND ATOMIC ENERGY IN PHILATELY



**I. The Atomic Era:** The broad concept of the atomic structure of matter can be traced back some 2,500 years to the Hindu philosophers, among them Kamada, and later to the scholars of ancient Greece. Kamada held that matter was composed of very small, dispersed particles, free and independent of each other.

In the 5th century B.C., the Greek philosopher Democritus (born circa 460 B.C.) tried to explain why various substances differed in density. He observed that relatively less dense substances contained more open spaces and thus concluded that matter was not continuous but made up of infinitesimal indestructible units - atoms - derived from the Greek "atomos": "that which cannot be cut".

The laws of nature were constantly and often hotly debated by the sixteenth and seventeenth century philosophers. One of the titans of science, Galileo Galilei (1564-1642), virtually the founder of dynamics, was prematurely outspoken in anticipating Newton's Laws of Motion and aroused the wrath of the Church. He was tried by the Inquisition, forced to abjure his beliefs, and although sentenced to imprisonment, was permitted to retire to a villa near Florence, where he died in 1642, the year of Newton's birth.