

Editorial

V Rajaraman, Associate Editor

This issue features Mendeleev and his deep insight which led to the periodic table of elements. It is interesting to note that while writing a book on Principles of Chemistry he was disturbed by not being able to find a unifying thread describing the properties of elements. When he arranged them using their atomic weights he perceived that “the properties of the elements are in periodic dependence upon their atomic weights”. He also boldly predicted the existence of many elements which will fill the ‘gaps’ in the periodic table. Read the *article-in-a-box* by Chakravorty for a perceptive account of Mendeleev and his genius. Mendeleev’s Faraday lecture in the classics section is a treat. There are three more related articles. In the research news, Natarajan traces the exciting story of the discovery of Bohrium (named after Niels Bohr) one of the new entrants to the periodic table. Samuelson traces the acceleration in the discovery of new elements using particle accelerators. He concludes by stating that “we might have reached the limits of the periodic table as a predictive tool”. The third article is by Butera on Glenn Seaborg who holds the record for the discovery of the largest number of elements – one of them named Seaborgium. After reading these articles I can’t resist an Ogden Nashery



*If you want to name your own element rare
first go get an acceleratore*

We also have a rich fare of other articles. Today computer software is becoming large, complex, expensive to develop and crucial for running organizations. Software has to be built to accommodate changes, as policies and practices of organizations change. Computer scientists have been grappling with design methodologies for designing complex software which will allow changes and improvements inexpensively. Earlier methodologies used functions and subroutines which are being superseded now by objects. Mahabala’s lucid article describes designing with objects. Complex hardware systems should be designed for permanence and reliable operation. Srinivasan’s article discusses methods of measuring and improving reliability of hardware. Software reliability measurement is a different game as there is no ‘wear and tear’. The other general article is on fixed point theorem useful in solving non-linear algebraic equations. The series on atmosphere and oceans continues. In the series article on numeracy Gore and Paranjpe tell us how to reliably count tigers!

Computer scientists have been grappling with design methodologies for designing complex software which will allow changes and improvements inexpensively.