

TWO FACES OF ARSENIC

Summary

Arsenic is a metalloid which occurs naturally in air, as well as in soil and water. Its sources are both natural and antropogenic. Form in which arsenic compounds occur, depends on oxygen levels and involvement in biological processes. For 2500 years arsenic has been used by man. In antiquity, compounds, like realgar or aurypigmentum, were used in treatment of many diseases. Arsenic trioxide, on the other hand, was used as a poison. In 1908 Paul Ehrlich won Nobel Price for introducing arsenic

compounds into medicine, especially salwarsan for treatment of lues,. Also in present medicine a variety of diseases (i.e. acute promielocytic leukemia or sleeping sickness) is treated with arsenic compounds. Millions of people are suffering because of chronic exposure to arsenic. There is need for further investigation to better understand molecular mechanisms of arsenic toxicity and action of arsenic-containing medicines, as well as of its role in environment.