

IBA Periodic Table and other useful accelerator Excel programs^{*}

B. L. Doyle

Sandia National Laboratories, Albuquerque, NM - 87185

This talk will demonstrate the IBA Periodic Table website developed at Sandia that should be quite useful to the SNEAP community. The purpose of this website is to quickly give the site visitor information on the sensitivity, depth of analysis and depth resolution of most of the modern ion beam analysis techniques in a single easy to use format: a periodic table. The table is interactive and clicking on each elemental panel of this table provides even more information on the IBA of this element, such as collision cross sections and even sites where you can download programs to analyze IBA data. Toward the bottom of the site, one can find 9 Excel programs that should be very useful to accelerator operators. These include calculations for the ion charge state that produces the most intense beams from tandems, deflection of ions by the Earth's magnetic field and electrostatic/magnetic steerers, ion channeling half-angles, nuclear reaction kinematics, and stopping powers.

The website can be found at <http://www.sandia.gov/pcnsc/departments/iba/ibatable.html> or simply by searching for "IBA Periodic Table".

*Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.