

A Community Material Assay Database

Wednesday, 10 April 2013 18:35 (20 minutes)

The physics community possesses a wealth of knowledge on the radiopurity of materials, which has been acquired laboriously during the design and construction of generations of ultra-low background experiments. To the extent that this information has been shared, it has been done so through databases of limited scope or availability, through publications and through informal exchanges. The aim of the Community Material Assay Database is to consolidate these data into a single comprehensive repository, in which the data is stored in a concise and flexible data format, and is accessible through a powerful web interface. This open-source database is built using the CouchDB NoSQL database engine. Assays are encoded and stored as JSON documents, and searched and edited using a client-side AJAX web application stored within the database itself. The software can also be used as a stand-alone application by experimental collaborations or counting facilities. The initial release contains data from the ILIAS project and publications by the EXO and BOREXINO collaborations. It is accessible at <http://radiopurity.org>

Primary author: Dr LOACH, James (Shanghai Jiaotong University)

Co-authors: Dr COX, Adam (KIT); Dr POON, Alan (LBNL); Mr WISE, Ben (Southern Methodist University); Prof. COOLEY, Jodi (SMU); ADLER, Keith (Southern Methodist University); Mr NGUYEN, Khang (LBNL); Mr BRUEMMER, Matthew (Southern Methodist University)

Presenter: Dr LOACH, James (Shanghai Jiaotong University)

Session Classification: Session 1: Overview of global radioactivity measurement facilities

Track Classification: Overview of global radioactivity measurement facilities