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Radiochemistry teaching and research activities in Brazil

M.B.A. Vasconcellos, M. Saiki

Instituto de Pesquisas Energéticas e Nucleares, IPEN/CNEN-SP, São Paulo, BRAZIL

Much concern has been expressed lately about the decline of teaching and research activities in Radiochemistry in many countries, as was discussed in an IAEA Technical Meeting in Antalya, Turkey, in 2002 and also at MTAA11 in Guildford, UK. In the IAEA meeting, a survey was presented about the current situation in different regions of the world (Eastern Europe, East and West Asia, Africa, North America and Latin America) by experts of each region. Of the twenty Latin American countries that are IAEA Member States, the survey conducted revealed that the activities are mainly concentrated in: Argentina, Brazil, Chile, Jamaica, Mexico, Peru, which have nuclear research reactors operating and also in Cuba, which conducts Graduate Courses in Radiochemistry and Nuclear Chemistry. In the case of Brazil, which has three nuclear research reactors and also cyclotrons in operation, the teaching and research activities in Radiochemistry are concentrated in the three main Institutes of the Brazilian Nuclear Energy Commission, in the University of São Paulo and in other Universities, in different regions of the country. Brazil operates also two nuclear power reactors, Angra 1 and Angra 2, with 626 MWe and 1,275 MWe, respectively and it dominates the uranium fuel cycle, from enrichment of uranium by ultracentrifugation to the production of U_3O_8-Al or U_3Si_2-Al fuel elements, which demands also specialists in the nuclear measurements area. In the present work, a closer look is given to the Radiochemistry teaching and research activities that are being conducted nowadays in Brazil, comprising: number of Radiochemistry Courses and students being formed, main research areas being conducted, research and production of radioisotopes for Nuclear Medicine, using nuclear reactors and cyclotrons.