IAEA FELLOWSHIPS
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High Resolution Gamma Spectometry with HPGe Detectors

I belong to the Basic Radiochemistry and Nuclear Data Division of the Nuclear Chemistry Group of the Argentina Atomic Energy National Commission. I am a chemist, and I hold a Master of Science degree in Radiochemistry. My work is mainly focused in the study of nuclear reactions, and the related nuclear data, with the ultimate purpose to develop production methods for some radionuclides devoted to nuclear medicine in the Ezeiza Atomic Center. I am working at the Dan Beninson Institute of Nuclear Technology too, as a teacher of several courses and as a postgraduate academic coordinator in the Radiochemistry and Nuclear Applications program.

My two month IAEA-sponsored fellowship was developed in the Nuclear Engineering Teaching Laboratory of the University of Texas, at Austin, under the supervision of Dr. Sheldon Landsberger. The programme was centered on high resolution gamma spectrometry with HPGe detectors and its application to the analysis of different samples.

The topics covered included the influence of different parameters on the results of the measurements, i.e. geometry, dead time, self attenuation, efficiency transfer approaches for samples with different volumes from calibration sources, and guidelines for application of

correction methods. Furthermore, detection limits, minimum detectable activity calculations and uncertainty budget were done applying different software to these analyses.

I was also attending, during my stay in Austin, the Gamma Spectrometry Course of the Mechanical Engineering Faculty of the University of Texas, led by Dr. Derek Haas.

All the knowledge and experiences acquired during the fellowship will be shared with my colleagues and students, to extend and improve our current knowledge in the field of gamma ray spectrometry. I am extremely grateful for this fellowship opportunity. It was a very interesting professional and academic experience.

Sandra Siri — **Argentina**

Project ARG-16001 — 1/9/2017 — 3/3/2017