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Research Reactor Laboratory: Achievements

- Refurbishment of GRR-1 infrastructure related to upgrade of neutron monitors, radiation protection instrumentation, neutron beam tubes, lead gamma shielding of the graphite thermal neutron column.
- Shipment of all High Enrichment Uranium spent fuel to the country of origin.
- Neutronic and thermal-hydraulic calculations for the safety analysis of the new Low Enrichment Uranium Fuel core of the GRR-1.
- Development of a large sample instrumental neutron activation analysis technique for non-destructive analysis of precious objects, authenticity studies and representative sampling of heterogeneous materials.
- Development of a prompt-gamma neutron activation analysis facility based on isotopic neutron sources for non-destructive analysis of bulk samples.
- Development of a Time-Of-Flight neutron reflectometer at the research reactor (installation is underway).
- Development of computational and experimental methods for the characterization of radioactive waste drums.
- Development of neutron detector electronic for time-of-flight measurements
- Development of computational methods for gamma ray and neutron detector characterization.
- Development of a fully equipped gamma spectrometry laboratory.
- Development of a sample preparation laboratory
- Installation of a Small-Angle X-Ray Scattering (SAXS) apparatus.
- Funds attraction from EU competitive projects, IAEA and General Secretariat of Research and Technology (GSRT) (total 1.7 M€ in the years 2004-2006).
- Training of research reactor operating personnel.