

AbstractID: 3808 Title: Needs in Ionizing Radiation Measurements and Standards

**Purpose:** The Council on Ionizing Radiation and Measurements and Standards (CIRMS) of which the American Association of Physicists in Medicine is an Organizational Member, has recently issued its triennial report identifying needs for standards in four primary areas: Radiation Protection, Medical Applications, Industrial Applications and Materials Effects, and Homeland Security. The report is used by the National Institute of Standards and Technology (NIST) and other government agencies to formulate and prioritize work in the development of appropriate standards.

**Method and Materials:** Standards needs in the form of Measurement Program Descriptions (MPD) are formulated in a series of breakout sessions held during CIRMS annual meeting at NIST. Scientists from academia, government and industry collaborate in drafting the MPD's.

**Results:** Twenty-one MPD's appear in the Fourth Needs Report with four relating to Medical Applications, one for Computational Methods, eight for Radiation Protection and three for Homeland Security. The remainder address the special situations encountered in industrial radiation processing.

**Conclusions:** CIRMS represents an important vehicle by which NIST interfaces with the combined interests of the academic and industrial community. CIRMS involvement influenced the development of radiation standards pertinent to calibrating radiation measurement instruments used in mammography.