Performs work requiring expert-level professional knowledge of radiochemistry, inorganic and organic chemistry, separation and purification techniques, analytical chemical techniques, tracer and carrier techniques, instrumental chemical techniques, chemical yielding techniques, chromatography, neutron activation analysis techniques, and all other techniques that may be used in radiochemistry laboratories.

Duties include overseeing the development of radiochemistry procedures that will address the spectrum of activity levels in samples from nuclear weapons tests or nuclear-related accidents.

Conducts various specialized radiochemistry evaluations to resolve scientific problems when samples do not separate or purify as anticipated.

Provides technical assistance and training regarding laboratory methodology and standard operating procedures to the laboratory radiochemists.

Serves as a technical focal-point and advisor in specialty areas for investigating and resolving radiochemistry problems resulting from processing issues or samples that contain unexpected materials.

Plans, coordinates, and administers aspects of assigned radiochemistry programs through application of professional knowledge and skill in radiochemistry and laboratory practices, processes and techniques.

Identifies radiochemistry research and development requirements, and discerns technological needs for advanced instrumentation and techniques.

Executes assigned programs/projects in compliance with all applicable laws, policies, and procedures.

Writes detailed scientific documents.

Briefs nuclear radiochemistry techniques, requirements, limitations and results. Provides guidance and advises management on problems and proposes innovative solutions.