

**2018 Mo-99 TOPICAL MEETING ON
MOLYBDENUM-99 PRODUCTION TECHNOLOGY DEVELOPMENT**

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Argonne Support for Fission Mo-99 Production

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ABSTRACT

Argonne is currently supporting three potential US Mo-99 producers who plan to produce Mo-99 using fission-based technologies. Shine Medical Technologies, Niowave, and Global Medical Isotope Systems have developed accelerator-driven processes to produce Mo-99 from a uranium solution or target. Argonne has assisted or is currently assisting in the development of Mo-99 separation, recovery, and purification processes, target solution preparation, and solid target dissolution. Additional areas of support for these potential Mo-99 producers include, radiation effects on solution chemistry, off-gas generation, and precipitation, pH control, precipitation mitigation, and automation processes. An overview of work performed at Argonne to support SHINE Medical Technologies, Niowave, and Global Medical Isotopes will be presented.