

[TITLE OF INVENTION]

TECHNETIUM 99M ISOLATION SYSTEM AND TECHNETIUM 99M ISOLATION
METHOD

[ABSTRACT]

5 An initial introduction control part introduces an aqueous solution containing
molybdenum 99 and technetium 99m, and an organic solvent being capable of
dissolving the technetium 99m into an extraction tank. A micro-mixing control part
micro-mixes the aqueous solution and the organic solvent by heating and stirring a
mixed solution of the aqueous solution and the organic solvent introduced into the
10 extraction tank with a heater, while applying ultrasonic to the mixed solution. A
separation control part separates the mixed solution micro-mixed into two phases of
aqueous solution and an organic solvent. A taking-out introduction control part passes
the organic solvent separated into two phases through an adsorption column be capable
of adsorbing molybdenum 99 and introduces the organic solvent into an evaporation
15 elution tank. An evaporation control part evaporates the organic solvent and leaves
residue by reducing pressure inside the evaporation elution tank and heating the organic
solvent introduced into the evaporation elution tank with a heater, while applying
ultrasonic to the organic solvent. An elution control part introduces physiological saline
solution into the residue and elutes technetium 99m into the physiological saline
20 solution from the residue.

[FIG. 1]