



CP3 Cryoplunge Independence Test Evaluator Checklist

Supervising Staff: _____

Date: _____

Trainee: _____

Pre-Cooling Setup

- Ensure liquid nitrogen (LN₂) dewar is clean and dry.
- Fill the CP3 LN₂ container with fresh liquid nitrogen.
- Chill the ethane cup in LN₂ and then fill it with liquid ethane.
- Confirm ethane is fully liquefied (not bubbling vigorously).
- Place the ethane container into position in the CP3.
- Ensure humidity and temperature in the room are within acceptable range.

Evaluator Notes:

Grid & Sample Preparation

- Prepare grids (glow-discharged if needed).
- Load the grid onto the tweezers.
- Set blotting time (e.g., 1–2 seconds depending on sample).
- Apply 3–4 μL of sample to the grid.

Evaluator Notes:

Vitrification

- Insert the grid with tweezers into the CP3 arm.
- Adjust alignment so grid is centered over blotting pads.
- Press blot button to blot the grid.
- Plunge the grid into liquid ethane immediately.
- Transfer the vitrified grid into a pre-cooled cryo grid box under LN₂.

Evaluator Notes:

Shutdown and Cleaning

- Store or transfer the cryo grid box to the cryo storage dewar.
- Let the ethane container return to room temperature in the fume hood.
- Empty LN₂ container and wipe dry.
- Clean tweezers and sample holders.
- Log the session (grid ID, sample, date, parameters used).

Evaluator Notes:
