

Figures/Preliminary Results

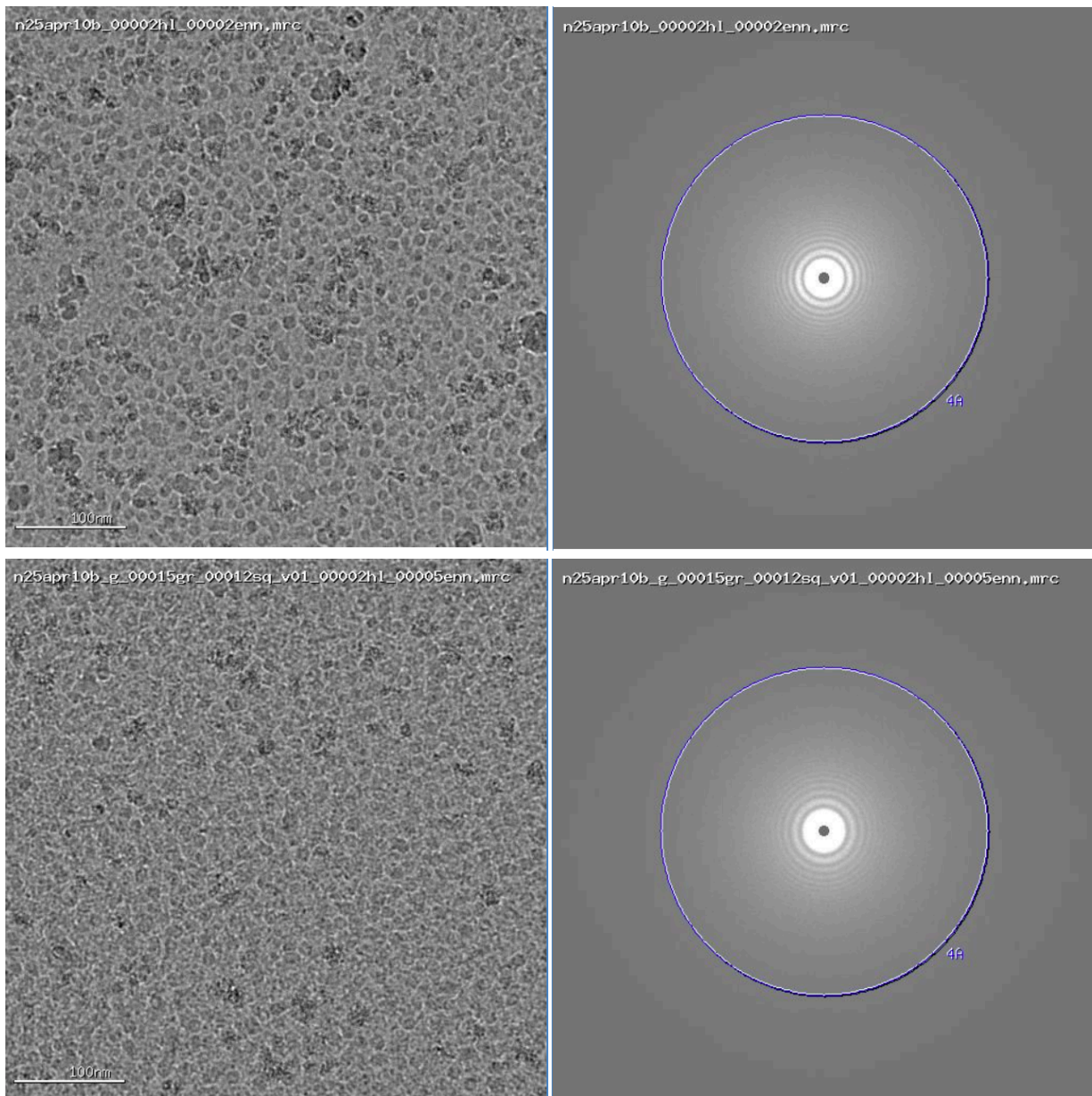


Fig 1. Micrographs containing Apoferritin particles suspended in vitreous ice accompanied by associated FFT - obtained with the v1 of the react-cryocool unit.

- **Note** - Concentration of Apoferritin is too high to obtain meaningful results through data collection. Explanation: To withstand side loading force imparted on the EM grid by cryogen jet, the EM grids are pre-clipped. Blotting was conducted with a small circle of filter paper on pipette tip followed by a wait time for evaporation to successfully form the thin film. During evaporation, the concentration increased as can be seen in Fig 1. Utilizing this GUP3 proposal, we also plan on testing the pipette and blotting technique

developed by Noble et al. [1] for pre-clipped EM grids to circumnavigate this issue, with a number of grids also applied with sample via a microfluidic sprayer.

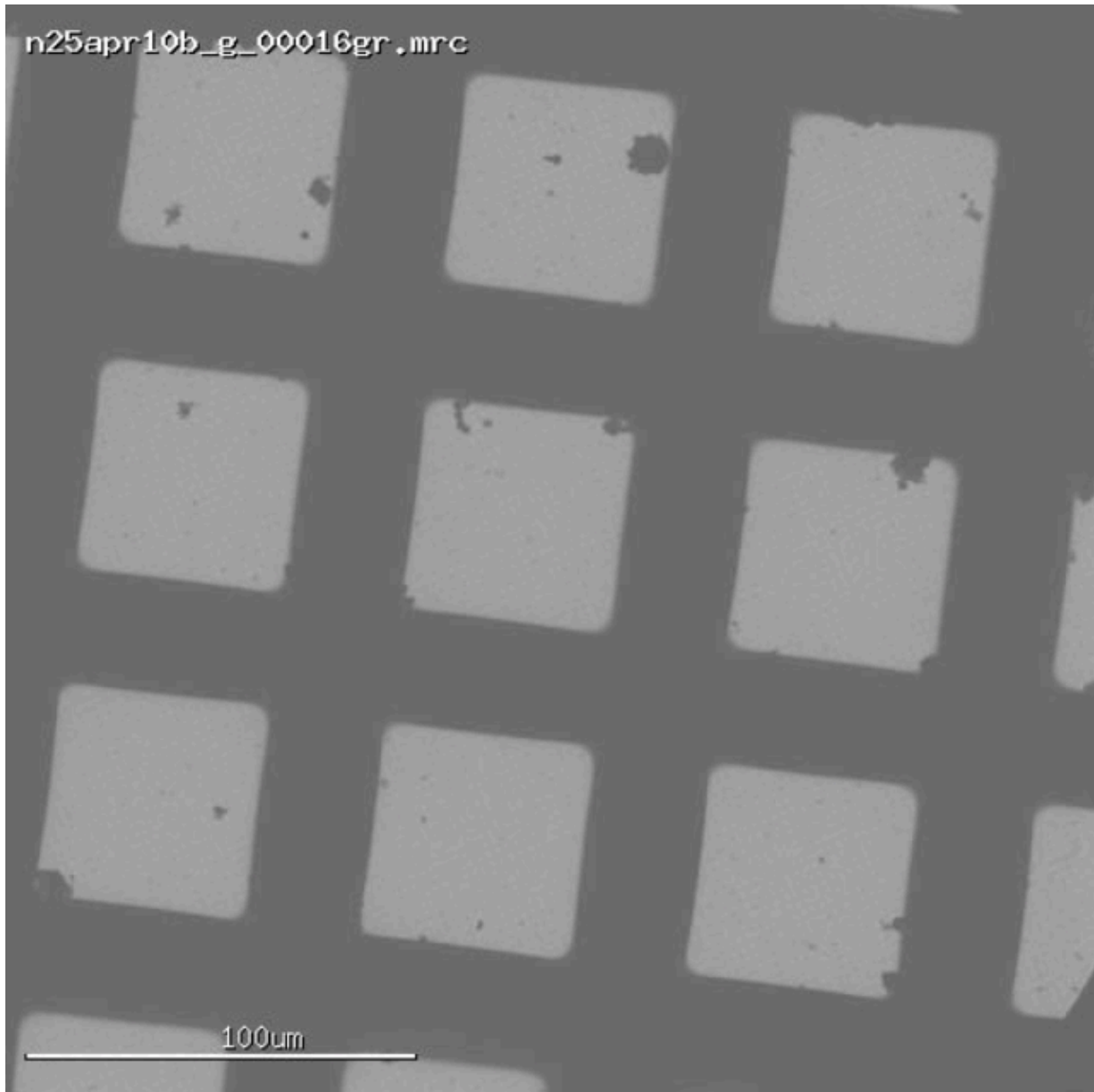


Fig 2. Grid squares remain intact despite impact from a single cryogen jet. Successful jet pressure found to obtain this through testing of v1 of the react-cryocool unit.

References

[1] Noble et al., "CryoCycle Your Grids: Plunge Vitrifying and Reusing Clipped Grids to Advance CryoEM Democratization".