



## COMPOSITIONS AND METHODS FOR PREPARATION OF A CRYOGENIC ELECTRON MICROSCOPY SAMPLE

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### The Invention

A UW-Madison researcher proposes a new strategy that uses small, stress-response proteins to preserve fragile samples during cryo-EM SPA sample preparation. The figure below illustrates the general sample preparation system, commonly used cryo-EM grids, and ideal, typical, and rescued samples prepared with the sacrificial stress-response proteins of the present invention. The rescued samples are able to be imaged using standard cryo-EM techniques without any additional processing or handling steps.

#### Publications

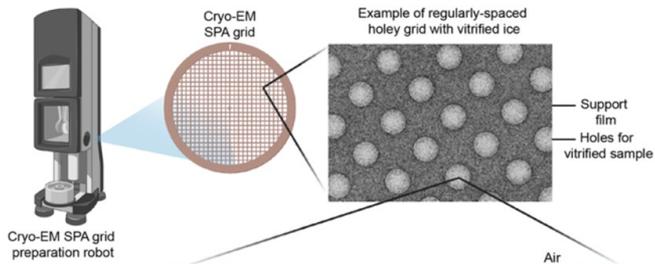
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#### Tech Fields

- [Analytical Instrumentation, Methods & Materials : Microscopy.](#)

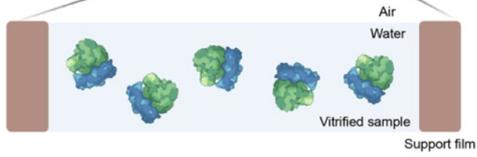
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### Figures

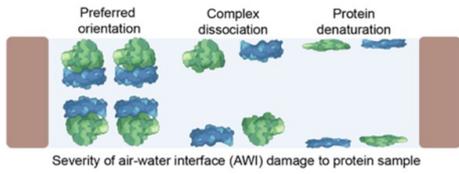


Cryo-EM SPA grid preparation robot

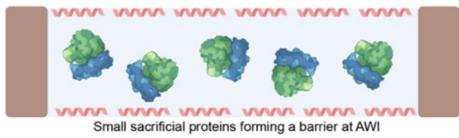
**Ideal**  
(or commonly perceived)  
sample distribution  
in thin film of vitrified ice



**Typical**  
sample distribution  
in thin film of vitrified ice



**Rescued**  
sample distribution  
in thin film of vitrified ice with  
**small sacrificial proteins**



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