



Licensing Opportunity  
AgResearch Ltd

**Patent Title:** Improved Drying Process

**AgResearch Ref:** Spray Freeze Drying

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**Inventors:** J Carson, D Graham, H Hill, G Schou

- ✚ A new method of freeze drying liquid materials where the material to be frozen is first atomised and frozen, and then dried at reduced temperature.

### Background

Freeze drying can require 22 - 24 hours drying cycle, and must be loaded and unloaded by hand. Both these factors can inhibit large-scale producers looking to push out more product. Increasing efficiency was the goal behind development of the continuous spray freeze dryer.

### Invention

This invention relates to a dryer and a drying process. In particular, though not solely, this invention relates to a dryer for use in freezing, concentrating or drying a liquid substance having solid particles in suspension or a substance dissolved therein. This new technique dramatically reduces processing times and can be used as a continuous process (as opposed to batch).

### Uses of the Invention

This technology could have application in any industry where freeze drying is already used, especially where processing time is critical.

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