As demonstrated in the setup of the previous post, I have setup 5 samples of Dark Virginia tobacco seeds with each sample being in a different water type: DI water, 33% D2O, 66% D2O, 99.9% D2O, and for poops and giggles 99.9% deuterium depleted water (DDW).

The percentages are by volume (for example 33% D2O is 2mL of D2O and 4mL of DI H2O). Each sample contains 6mL of its respective water type. I’ve determined that the volume of each cell is a little less than 7mL and 6 comfortably fits with no spillage (there is a small air bubble in the chamber). Each sample also has 30 seeds.

The sample cells were setup as follows: Seeds were counted and placed on one of four prefolded sheets of weigh paper. Airflow was a problem so I placed relatively heavy objects on the edges of the paper to prevent a seed catastrophe. After seed sorting, I prepared the water samples in centrifuge tubes for temporary holding and mixing (in the case of the 33% and 66% D2O samples). 6mL of each water type was then poured into prelabeled Analyslides. The seeds were then added with the lid of the analyslide placed on top to “seal” it. Slides were then placed on the pre-assembled photography station.

Today marks day 1 of the experiment and I am proud to report that in the 5 minutes it’s been, 0% germination is seen across all 5 samples. So far results are as expected.