

DSG-Ansys R&D Meeting Minutes

Date: April 14, 2022

Time: 14:00 to 15:00

Attendees: Aaron Brown, Pablo Campero, Brian Eng, Tyler Lemon, and Marc McMullen

1. EIC beryllium section

Pablo Campero and Brian Eng

1. Discussed results of thermal analysis in *Ansys Fluid Flow Fluent* with aerogel solid instead of air flow
 - Changed the air in the annulus space with aerogel
 - Converted to solid domain and the thermal properties for aerogel
 - Results shown in table below

| Ambient Air Temp. [°C] | Air flow Velocity [m/s] | Si Sensor L1 Max Temp [°C] | Si Sensor L1 Max Temp. [K] |
|-------------------------------|--------------------------------|-----------------------------------|-----------------------------------|
| 20 | 0 | 99.78 | 372.93 |
| 20 | 5 | 61.11 | 334.26 |
| 20 | 8 | 54.56 | 327.71 |
| 20 | 10 | 51.48 | 324.63 |

2. Discussed slides to be presented to EIC Experimental Equipment Engineering meeting
 - Only the results obtained from *Ansys Fluid Flow Fluent* will be presented
 - Information on the model meshing will be included