

### Questions from the discussion of “CNO Cycle” paper on $^{14}\text{N}(p,\gamma)^{15}\text{O}$

1. What should we have learned from the final plot (Fig. 11)? Why is it important to measure this energy and this reaction? (Ken Moore)
2. Is there any astronomical observable that can confirm the final result (of Fig. 11)? (Anton)
3. Why use the S-factor instead of the cross section? What is the advantage of reporting the S-factor (since the experiment measures the cross section)? (Cody)
4. How much time does it take (on average) for a single p-p chain to occur (in our Sun)? (Azamat)
5. How does a BGO detector work? Why was BGO used instead of some other detector like NaI? (Bijaya)
6. How were the calibration sources (for the BGO calibration) chosen? (Anthony)
7. What is the difference between a Faraday cup and the beam calorimeter for the beam current measurement? (Dilu)
8. Why did the experiment use 3 stages of pumping? Why not just one stage? (Bing)
9. What is the relationship between beam current and pressure? Why couldn't the experiment have been done with an enclosed target (with a target window)? (Harsha)