Nuclear Lunch Questions

1. How is the energy yield measured? What material is the hohlraum made of? (Joseph Foy)
2. What is the physics motivation behind hurricane criterium and betti criterium? Describe ICF energy coupling. (Chirag Rathi)
3. Are there any planned experiments that will try to reproduce these results? What happened in 2022 where the yields were so low? (Sijan Regmi)
4. If the previous result from 2014 couldn’t be classified as a burning plasma, what could it be classified as? Is burning plasma more efficient, sustainable and reliable in energy production? (Andrius Burnelis)
5. What are the different forms of Internal Confinement Fusion (ICF)? (Bikash Chauhan)
6. How do they establish confidence for whether or not burning plasma was achieved? How was a 100% confidence level achieved? (Pramita Tiwari)
7. What is the constant in front of $pT^{1.6r}$ on the x-axis of fig 2a? What are the units supposed to be? (Jacob Murphy)
8. What is Lawson criteria? What is the energy density inside the hohlraum? (Prasanna Nepal)
9. Could one remove a few lasers from the experiment but achieve the same results? Would you need to increase the laser energies? (Justin Bryan)
10. Can you explain the process of how the lasers come in and strike the inside surface to provide the “Planckion X-Ray bath”? (Yenuel Jones-Alberty)
11. They talk about net energy gain vs laser input energy, what about the total energy required to produce the laser beams? (Alexandra Semposki)
12. What is the duration of each run? Since the plasma is self-sustaining, is the driving lasers turned off once achieved or does it need to be continuously pumped? (Bradley McClung)