

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
DEPARTMENT OF CHEMICAL ENGINEERING
PG Research lab
STANDARD OPERATING PROCEDURE
TPR Macro

1. Change Gas to He
2. Ramp temp to 140 Deg C at 10 deg C / min
3. Flow until set point
4. Flow for 30 min
5. Ramp temp to 40 Deg C in 1 min
6. Flow until set point
7. Change gas to 20% NH₃+80%He
8. Flow for 30 min
9. Change Gas to He
10. TCD on (Ib=100, Zeroing time out=5 min)
11. Flow for 30 min
12. Ramp temp to 600 at 10 Deg C/ min
13. Start TPD Acquisition ----- (*What should be the gas?*
20%NH₃+80%He or Pure NH₃?)
14. Flow until set point
15. End Acquisition
16. TCD Device off
17. Change gas to N₂
18. Ramp temp to 40 Deg C in 1 min
19. Flow until set point
20. End Macro