

## Procedure for KBr Pellet Preparation by Press

1. Clean each part of die, including die bore (cavity), small lower plunger, small upper plunger, and the long upper plunger by  $\text{C}_2\text{H}_5\text{OH}$ , dry the parts with soft tissue paper.
2. Place the small lower plunger on the base body center, set the die on the base, the big O-ring should be between them tightly.
3. Add the sample powder to the die bore (cavity) evenly, slowly insert the long upper plunger and rotate it a few times using light finger pressure. The long upper plunger is then withdrawn very slowly.
4. Place the small upper plunger on the top of the compacted powder.
5. Insert the long upper plunger, the small O-ring should be contact the die closely.
6. Put the whole die set in the oil press
7. Connect the vacuum hose to the die.
8. Rotate the top wheel of the press to tighten the die set (little tight).
9. Close the valve on the press tightly.
10. Increase the pressure to 7 tons by moving the press handle several times.
11. Turn on the vacuum pump and keep 7 tons pressure for 5 min.
12. Increase the pressure to 15 tons (Don't exceed 15 tons!)
13. Keep the 15 tons pressure for 10 min.
14. Turn off the vacuum pump.
15. Open the valve on the press very slowly and decrease the pressure to 0.
16. Disconnect the vacuum hose.
17. Take off the die from the press.
18. Take off the small lower plunger, sample pellet, and the small upper plunger carefully.
19. Clean each part of die assemble carefully and thoroughly with  $\text{C}_2\text{H}_5\text{OH}$ , and soft tissue paper.
20. Put the die parts in the original place for next use.