Table 7.3: Procedural summary for inert atmospheric methods.

Prepare the balloon

Fill a balloon with an inert gas (nitrogen or argon) to 7-8 inches in diameter.

Twist the balloon to prevent gas from escaping, then attach a needle and insert into a rubber stopper to plug.

Prepare the reaction flask

Flame or oven dry a reaction flask (with stir bar), and fold a rubber septum over the joint while wearing thick gloves.

Clamp the hot flask to the ring stand or latticework and insert the balloon of inert gas.

Insert an "exit needle" and allow the flask to flush for ~5 minutes (to displace the air).

Remove the exit needle and allow the flask to cool.

Prepare the syringe

Obtain a needle from the hot oven, screw it into the tip of a freshly opened plastic syringe.

Wrap the needle/syringe joint with Teflon tape or Parafilm.

Flush the syringe with inert gas by using an empty flask attached to a balloon of inert gas. Withdraw a volume of gas and expunge into the air.

Insert the needle tip into a rubber stopper to plug.
Deliver the reagent

Into the reaction flask (with inert gas balloon), deliver first the inert gas buffer, then the air-sensitive reagent.

Don't push out the residual liquid.

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