Hirsch Summary I.

FROM MY POINT OF VIEW………..

1. The gridded, high gas pressure discharges are a simple, inexpensive way to get started in IEC.
   - Some applications possible with that configuration.
   - Some physics to study.
   - High Q is not possible.

2. The most promising direction is to ion guns and high vacuum. That’s what’s necessary for high Q.

Hirsch Summary II.

IMPORTANT ISSUES………..

1. Clearly show the existence of virtual cathodes & anodes. (EXP)

2. Determine if high ion trapping inside virtual anodes is possible. (THEORY & EXP.)

3. Find satisfactory ways of theoretically dealing with high particle densities at r = 0. (THEORY)

4. There’s much to do in grid engineering:
   - Increase openness
   - Achieve better focusing of particles towards the center.
   - Reduce electron losses. (EXP)

5. Move to much lower pressures (higher vacuum) with guns. (EXP)

6. Invent ways to get rid of the grids.
   - Polywell?
   - Spindle cusps?
   - Other?

ALONG THE WAY SHOW PROGRESS WITH “POLITICAL NEUTRONS,” MEDICAL ISOTOPES OR OTHER.