# GREEN PHOLED MANUFACTURE PROCEDURE

Structure of the device: **Glass / ITO / PEDOT:PSS / PVK:PBD:Ir(ppy)$_3$ /Al**

1. Clean substrate (commercial glass slide coated with ITO): wash with isopropyl alcohol (isopropanol) and acetone, put in ultrasound bath in acetone for 10 mins (use Petri dish), wash with isopropanol again and dehydrate on the hot plate at 70ºC for 5 mins.
2. Filter commercial PEDOT:PSS. Put tape (with paper below it) on sample corner. Spin-coat it at 4000 rpm for 40 secs, starting at low speed (250-300 rpm for 5 secs) and increasing slowly up to 1000 rpm (10 secs), and then up to 4000 rpm.
3. Anneal PEDOT:PSS in $N_2$ environment at 100ºC overnight. Alternatively, heat at 150ºC for 30 mins to remove solvent.
4. Prepare emitting-layer solution. Ratios: 10:4:1. In 1 mL of dichlorobenzene, add 0.0106 PVK, 0.004 PBD and 0.001 Ir(ppy)$_3$.
5. Stir solution for 1 hour. Stirrer should be first cleaned with acetone and then washed (put it in tube and let it spin for a while) with dichlorobenzene.
6. Filter solution.
7. Put tape covering all the edges of the sample.
8. Deposit emitting-layer. Spin-coat the solution at 1500-2000 rpm for 50 seconds, starting at very low speed.
9. Anneal in $N_2$ environment overnight at 80ºC.
10. Deposit the aluminum layer for the cathode (using evaporator).

Note: Use labeled syringes for dichlorobenzene, PEDOT:PSS and the emitting-layer solution. Always label the tubes (with name and date) so as to indentify leftovers.

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