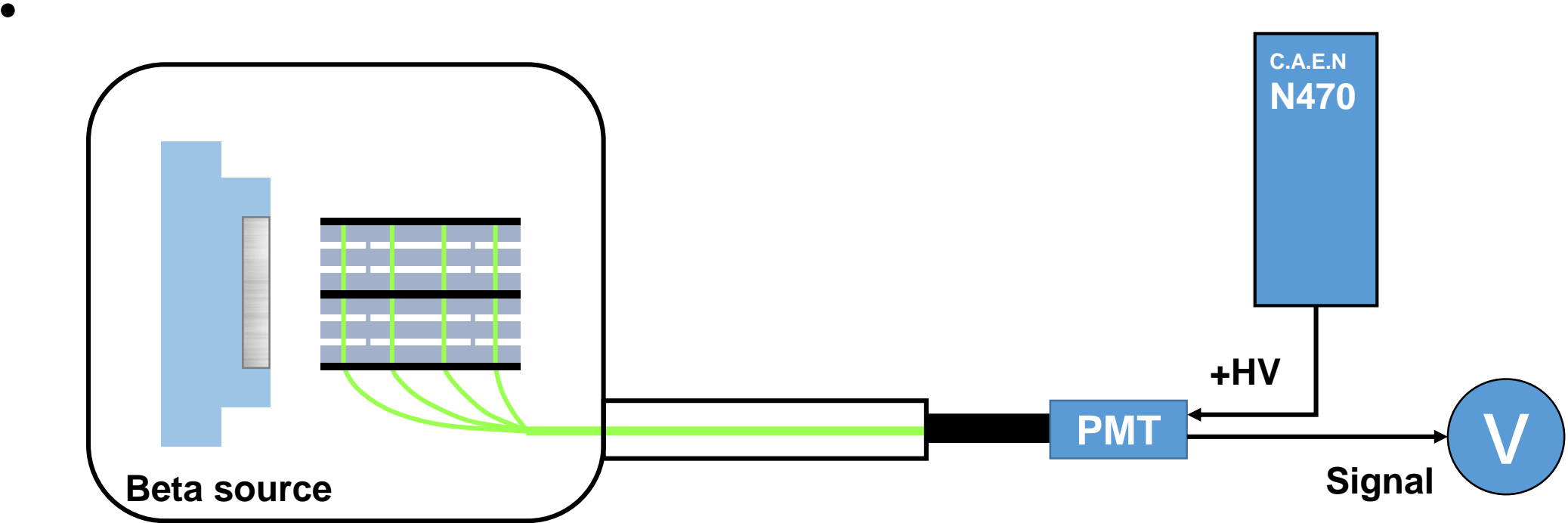
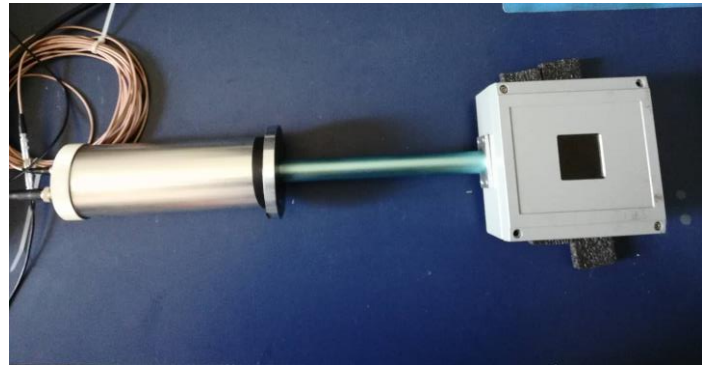


Test of reflective materials on lead surface

Botan Wang

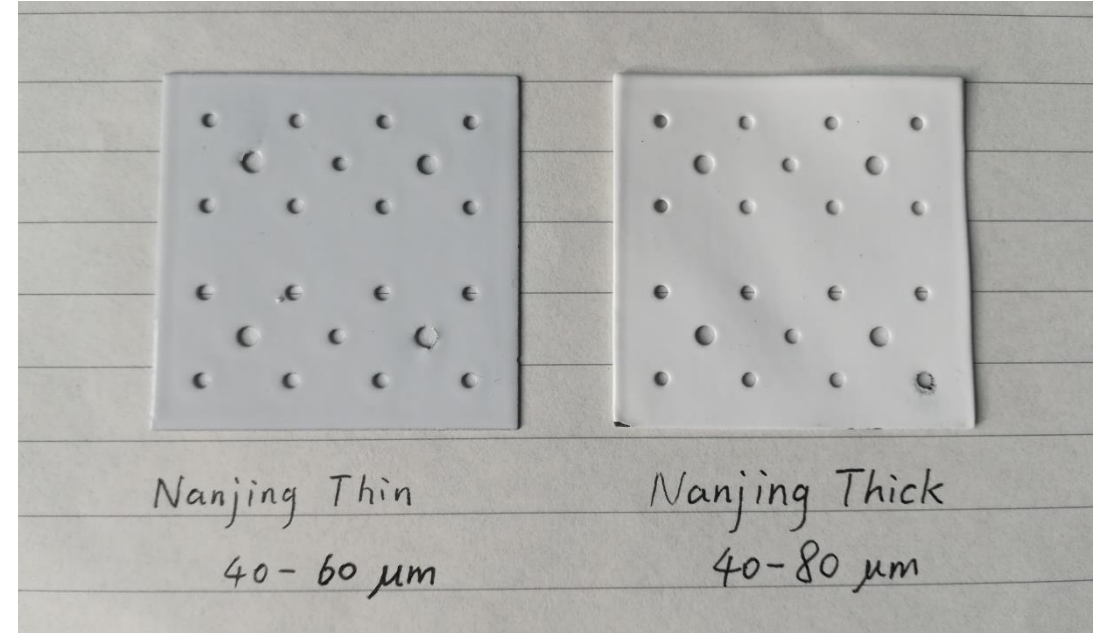
Tsinghua University

Test devices



Lead sheet samples

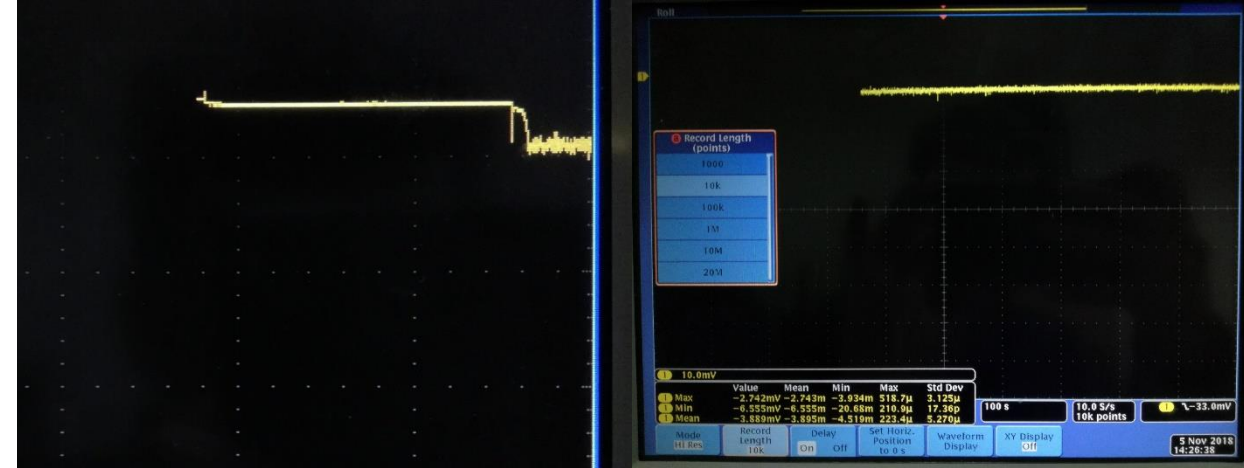
- New samples:
 - Nanjing thin sheets (40-60 μm)
 - Nanjing thick sheets (40-80 μm)
- For comparison:
 - Old smooth surface (36.5 μm)
 - New smooth surface (37.5 μm)
 - Thick TYVEK (62.5 μm)



Signal readout

- Multimeter

- Read the voltage variation range
- Difficult to tell the difference



- Digital Phosphor Oscilloscope (DPO4034B)

- High resolution mode: average output in a period of time, more smooth signals;
- 1MΩ impedance to get the measurable voltage;
- Sampling frequency: 10 Samples/s, total number 10K for calculation

Test result

| | Multimeter/mV | DPO/mV | Former Test/V |
|------------------------------|-------------------|--------------|-------------------------|
| Old smooth surface | 41 (39~43) | 3.924 | 0.45 (0.44~0.49) |
| Nanjing thin Surface | 40 (38~42) | 4.127 | |
| Nanjing thick Surface | 40 (37~43) | 3.749 | |
| New smooth surface | 36 (33~39) | 3.463 | 0.45 (0.43~0.49) |
| Thick TYVEK | 47 (44~50) | 4.177 | 0.54 (0.52~0.56) |
| no resource | 3 (2~4) | 0.918 | 0.04 (0.03~0.05) |