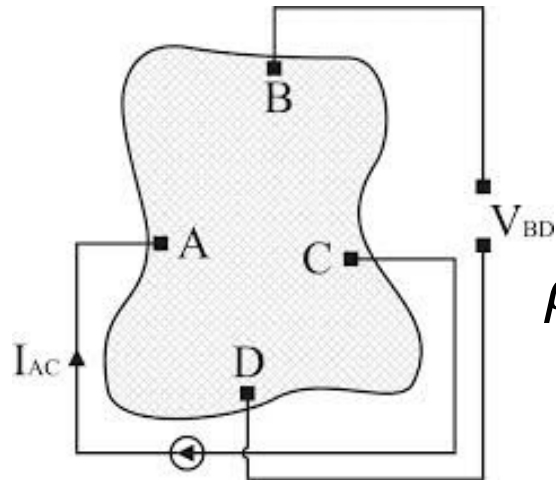


Deposited films report

| Samples | ρ_{sheet} (ohm/sq) |
|---------|--------------------------------|
| #2 | 2.75×10^6 |
| #3 | 1.44×10^5 |
| #7 | 9.62×10^4 |
| #8 | 1.2×10^5 |
| #9 | 1.02×10^8 |
| #10 | 1.2×10^9 |
| #11 | 1.35×10^8 |
| #12 | 1.28×10^7 |

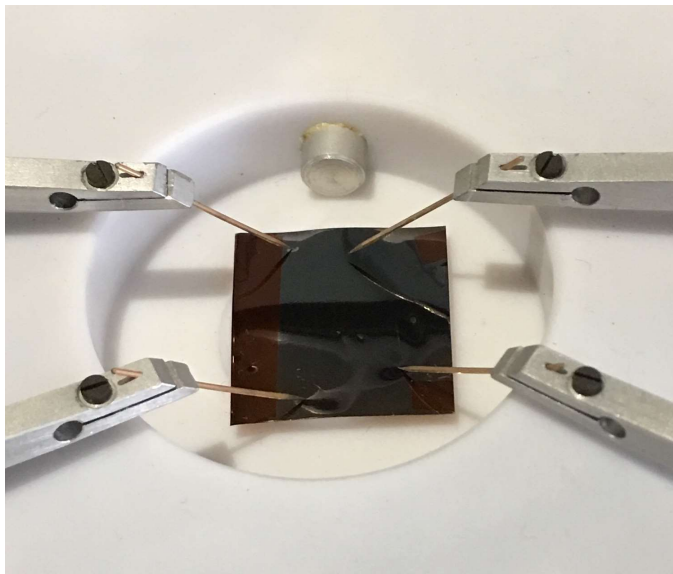
VDP method



$$\rho_{sheet} = \frac{\pi R_{VDP}}{2 \ln 2} F Q$$

Il metodo VDP consente di determinare la resistività di un campione:

- Di forma qualsiasi
- Molto sottile rispetto alle dimensioni trasversali
- Avente contatti ohmici sul bordo molto piccoli rispetto alle dimensioni complessive

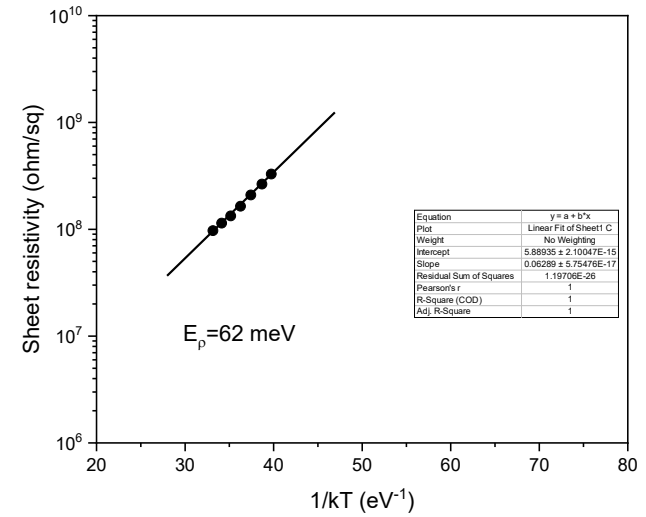


$$Q = \frac{V_{CD} I_{BD}}{V_{BA} I_{AC}}$$

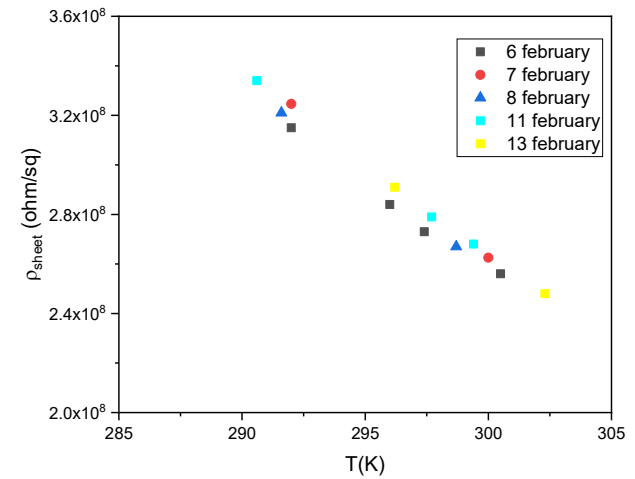
$$F = 1 - 0.34657 \left[\frac{Q-1}{Q+1} \right]^2 - 0.09236 \left[\frac{Q-1}{Q+1} \right]^4$$

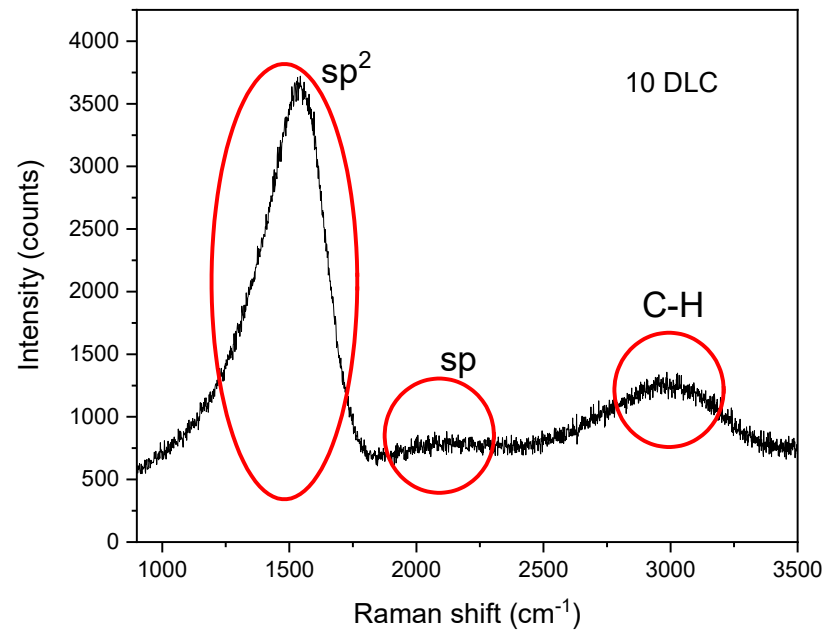
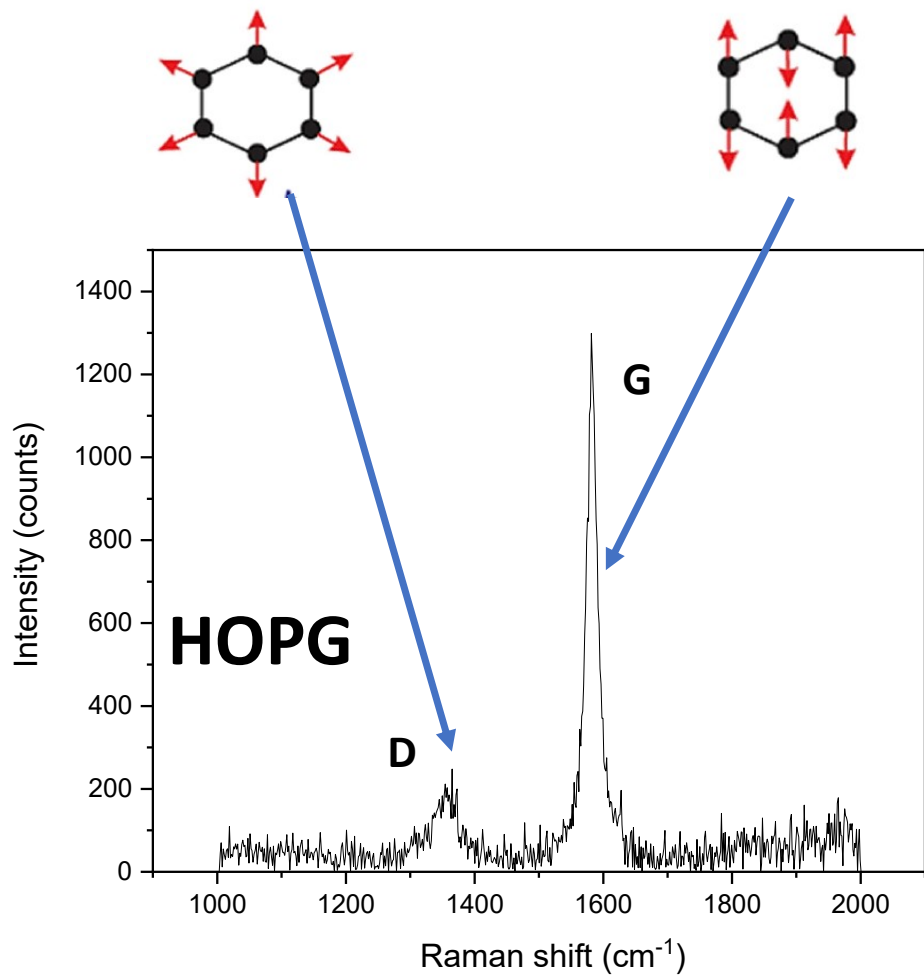
DLC#9

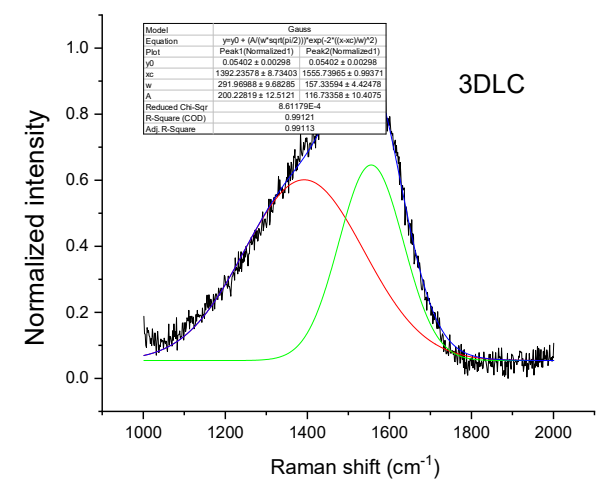
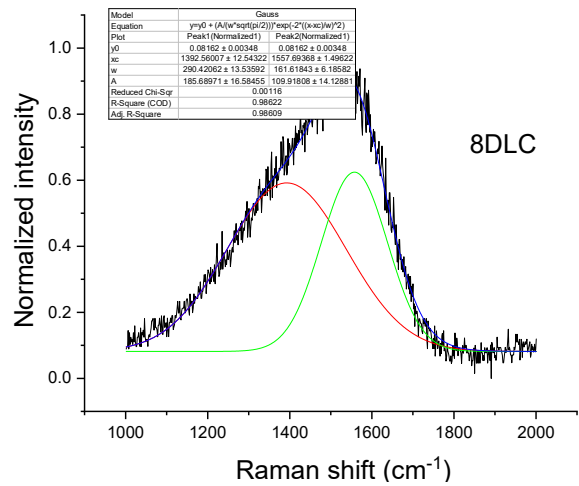
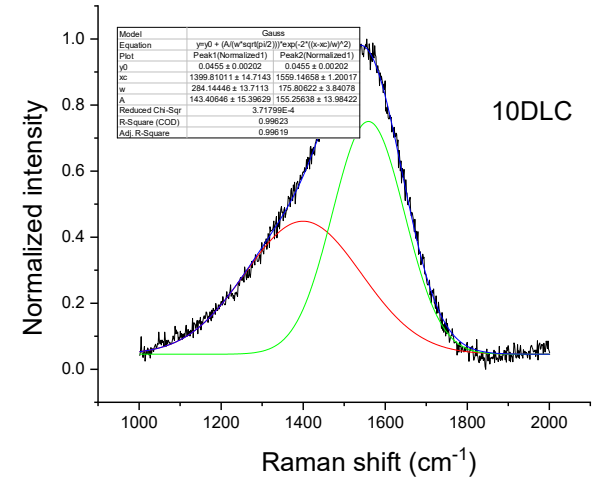
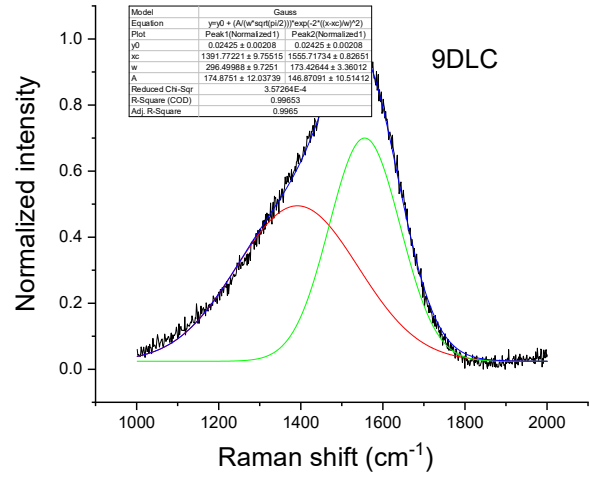
Thermal activated process



Long term stability

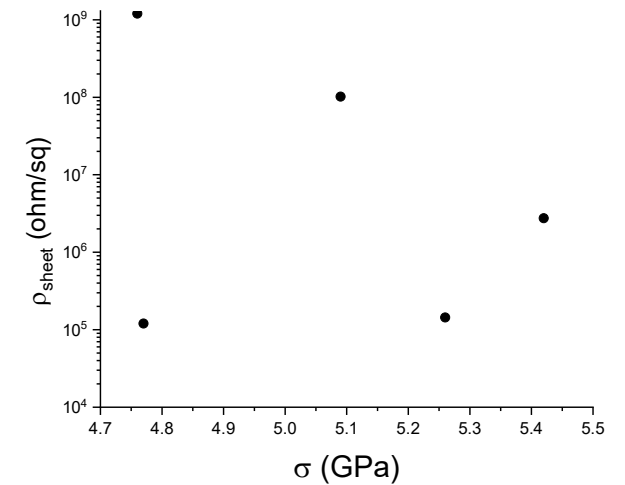
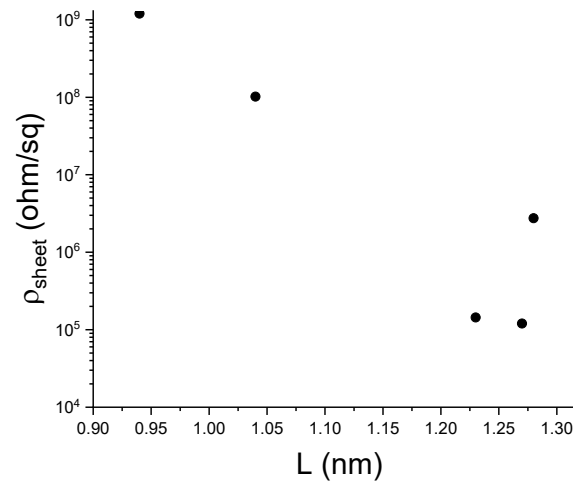
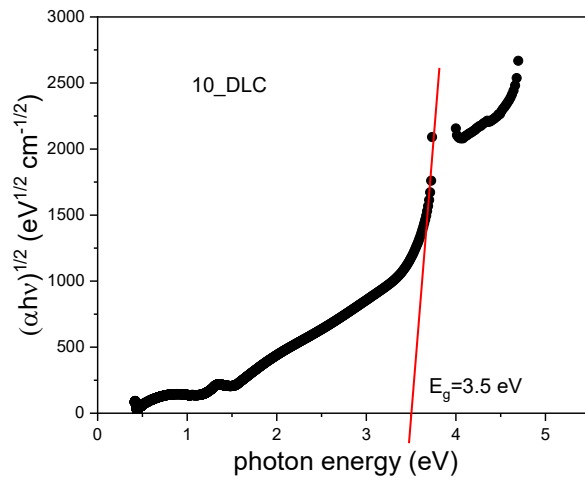
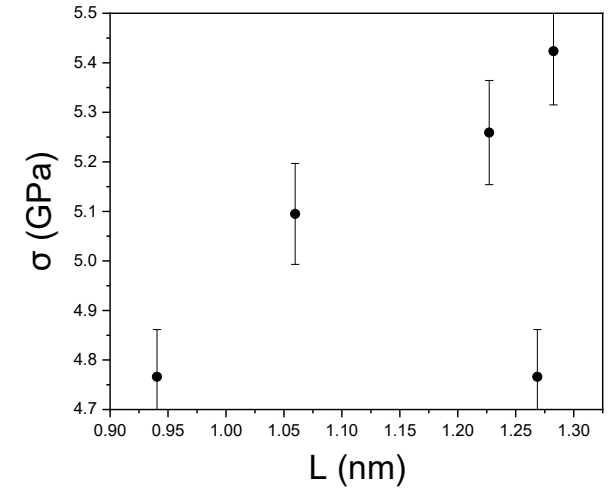


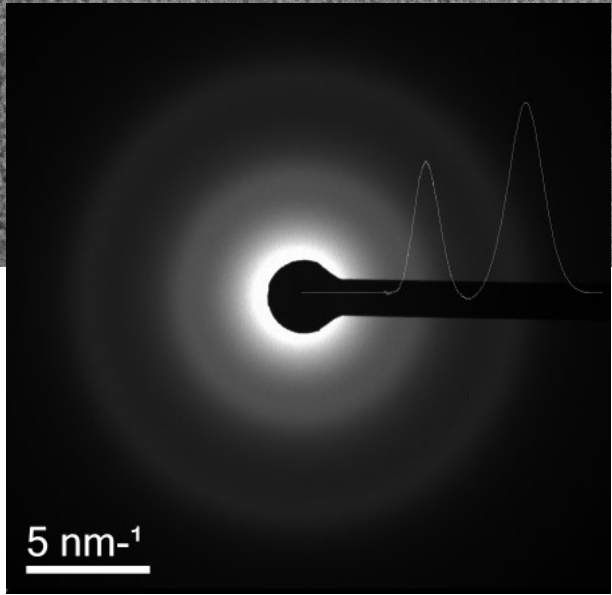
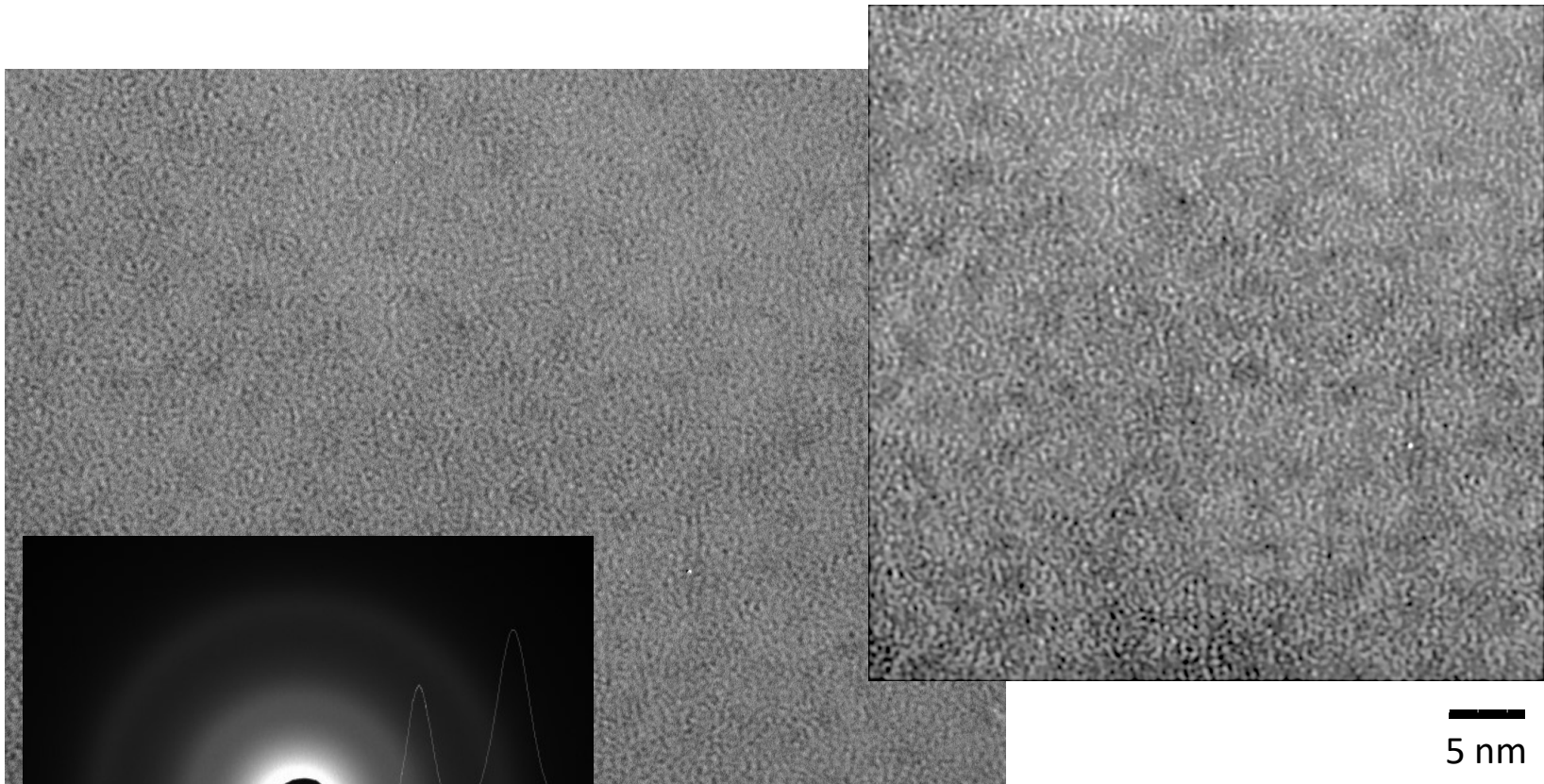




Structural and optical information

| | D cm ⁻¹ | G cm ⁻¹ | I _D /I _G | σ (GPa) | L (nm) | ρ _{sheet} (ohm/sq) |
|-----|--------------------|--------------------|--------------------------------|---------|--------|-----------------------------|
| #2 | 1391 | 1549 | 0.905 | 5.42 | 1.28 | 2.75x10 ⁶ |
| #3 | 1387 | 1550 | 0.828 | 5.26 | 1.23 | 1.44x10 ⁵ |
| #8 | 1392 | 1553 | 0.885 | 4.77 | 1.27 | 1.2x10 ⁵ |
| #9 | 1391 | 1551 | 0.618 | 5.09 | 1.04 | 1.02x10 ⁸ |
| #10 | 1401 | 1553 | 0.486 | 4.76 | 0.94 | 1.2x10 ⁹ |





$D=(1.8 \pm 0.5) \text{ nm}$
 $\varepsilon=(0.020 \pm 0.05)$