



La chimica è tutta un film

Stage estivo a Tor Vergata

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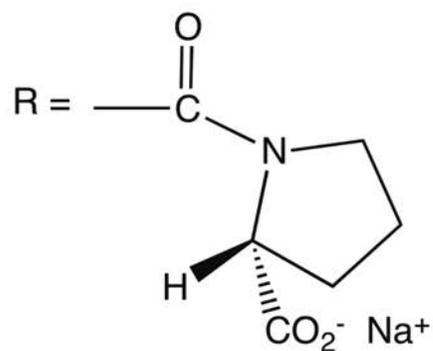
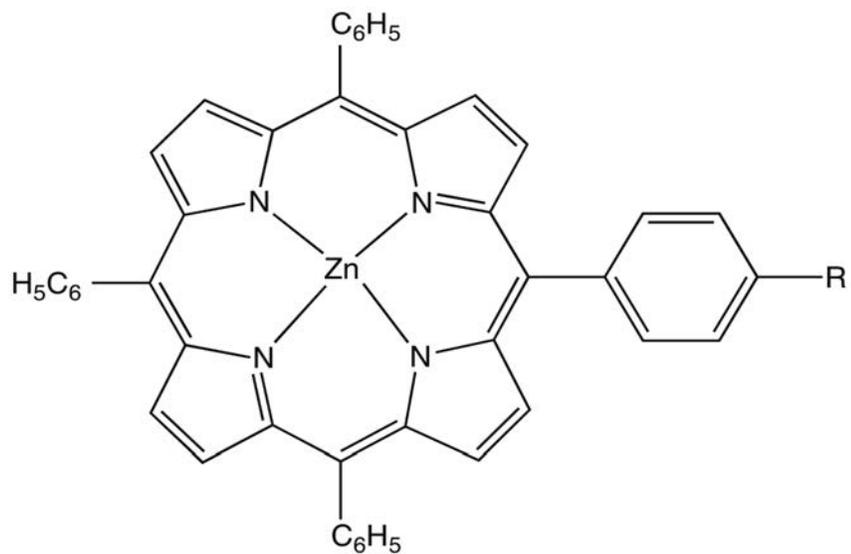
Emanuela Gatto

Rita Cimino

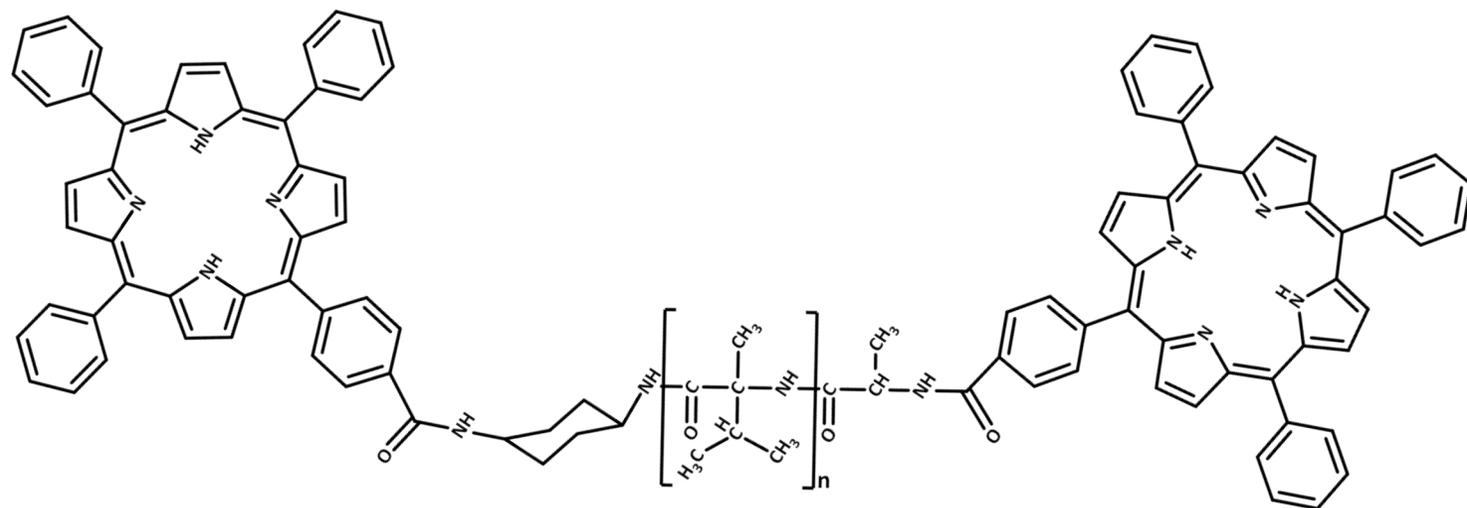
Marco Savioli

Francesco Riccitelli

Sistemi caratterizzati

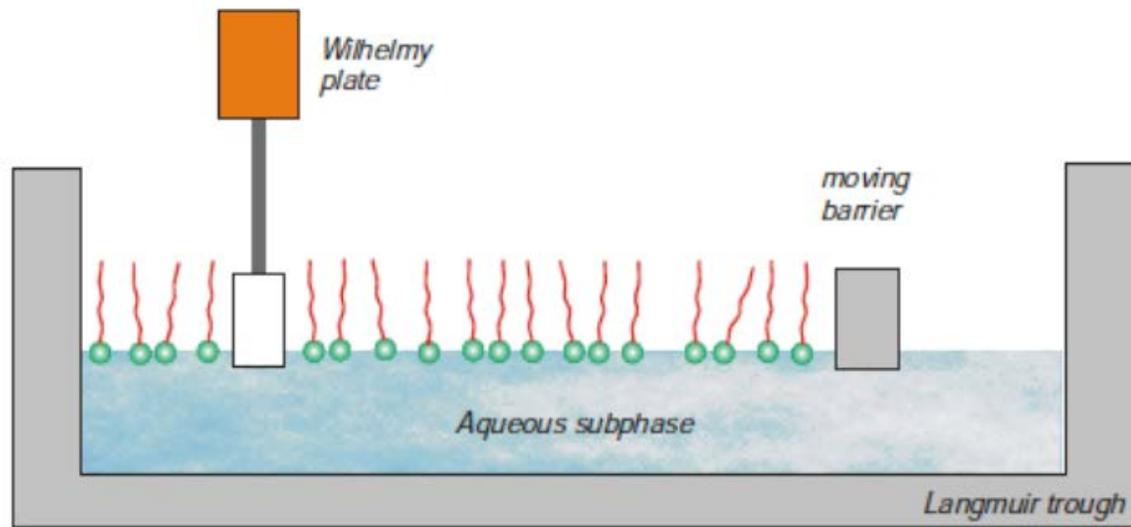


(L)-ZnP(-)

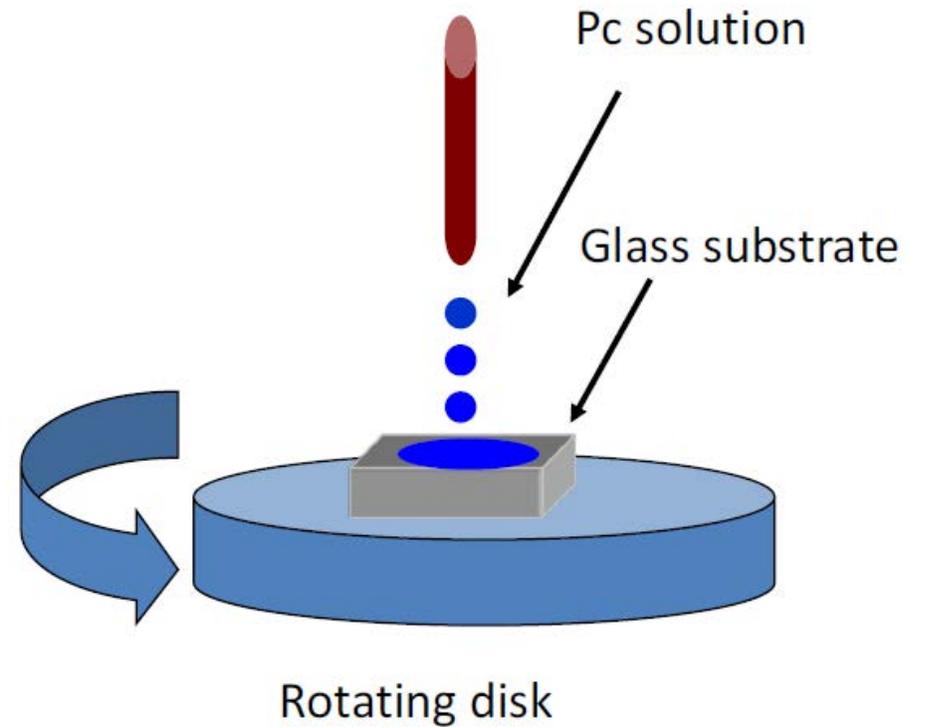


bPP-4

Tecniche di preparazione dei film



Langmuir-Blodgett

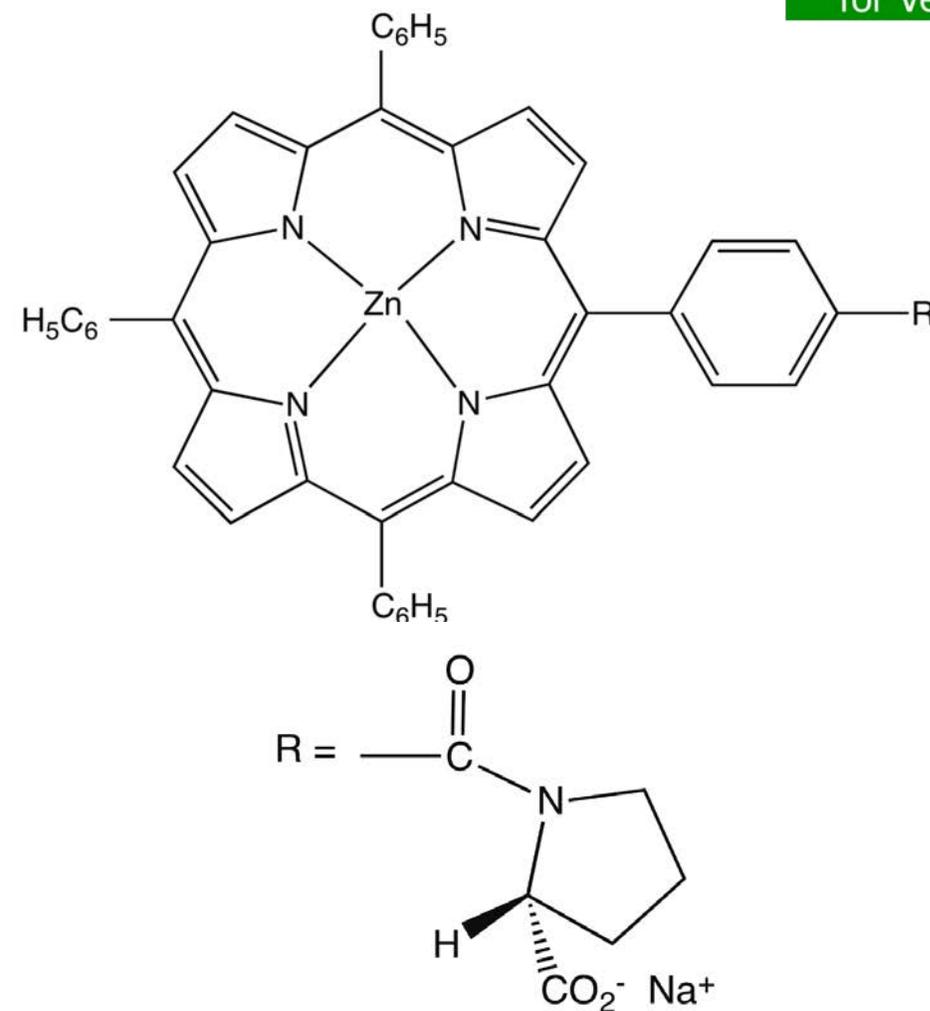


Spin Coating

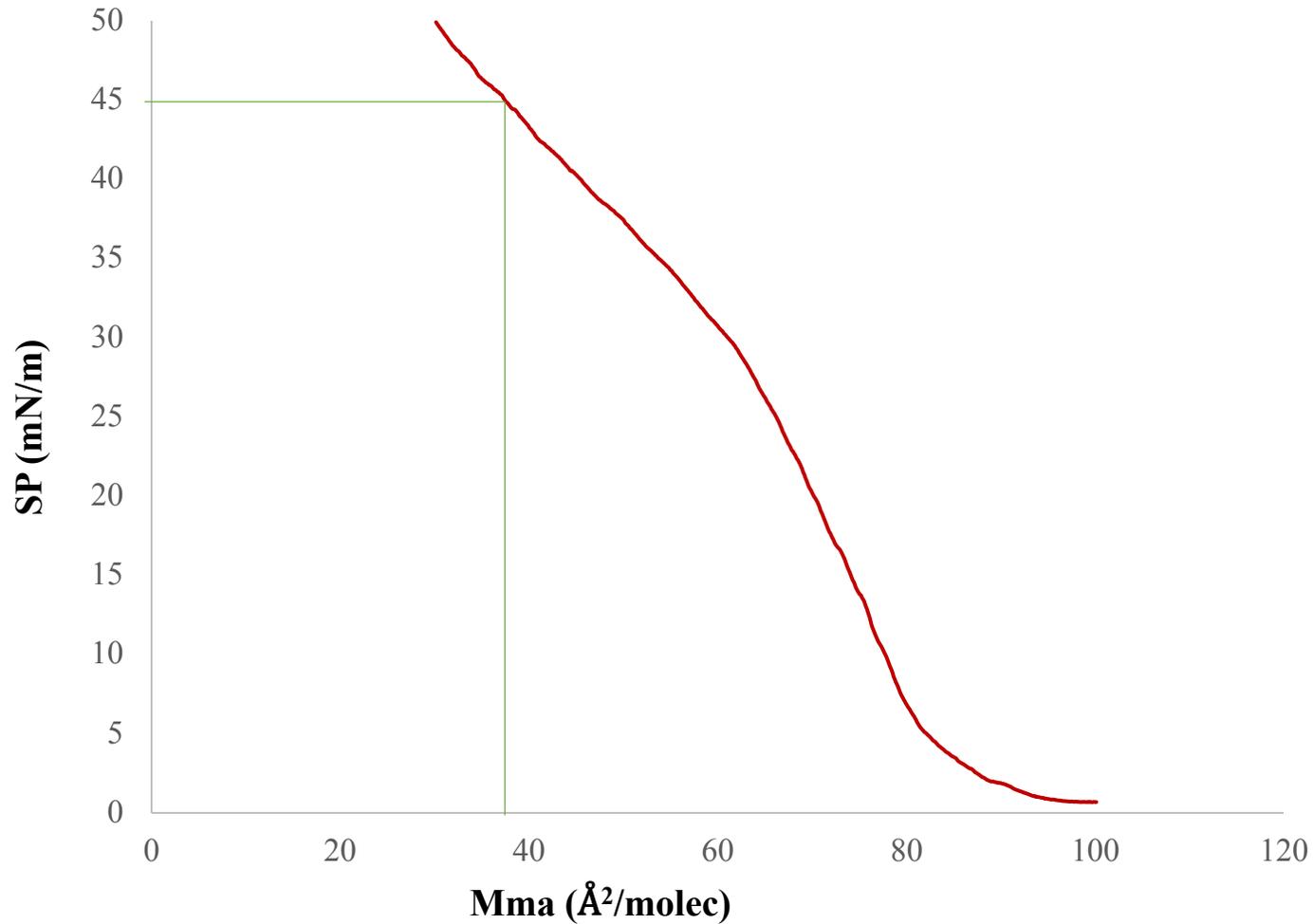
(L)-ZnP(-)

TPP funzionalizzata con l'amminoacido naturale L-Prolina.

La Prolina conferisce carattere chirale al sistema.

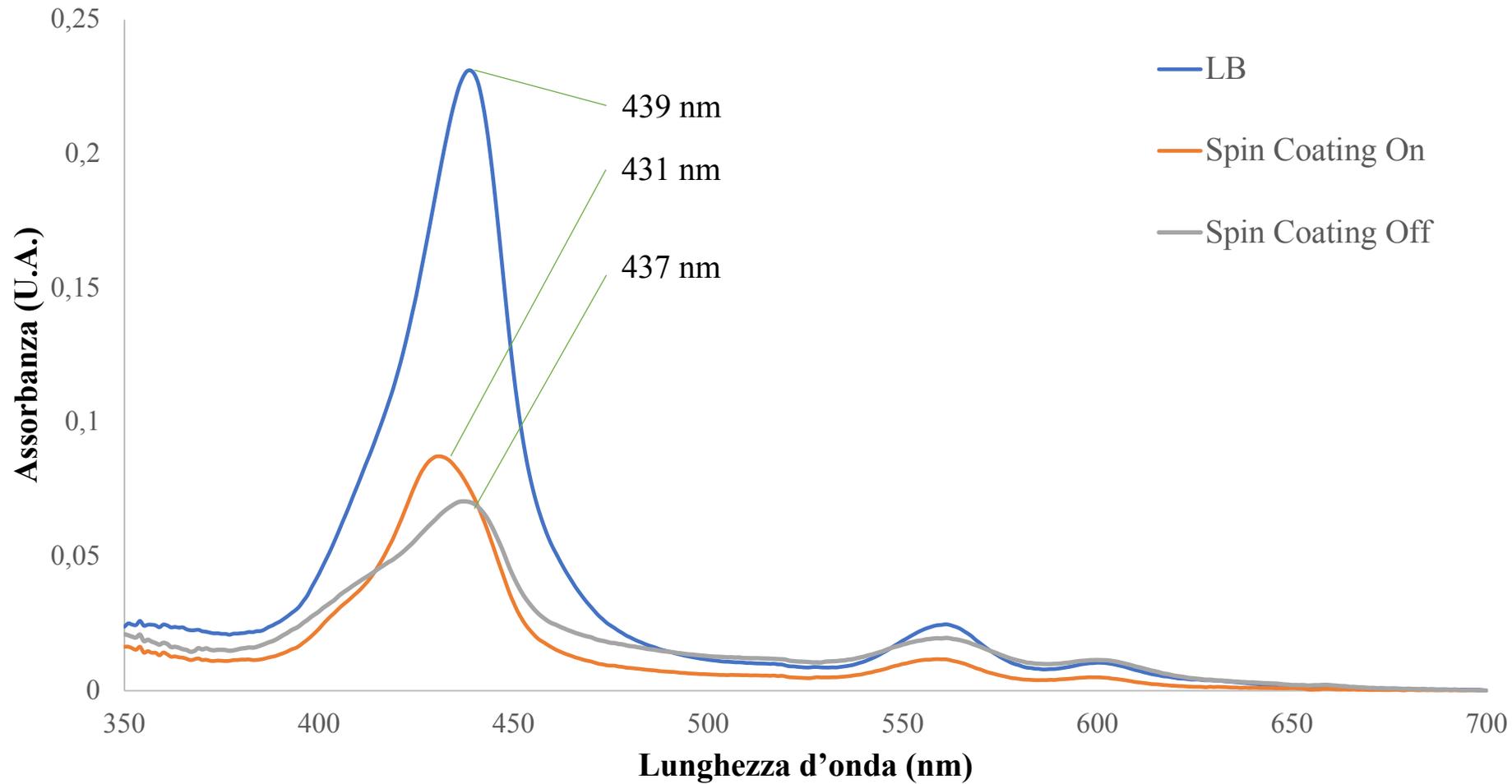


Deposizione con tecnica LB



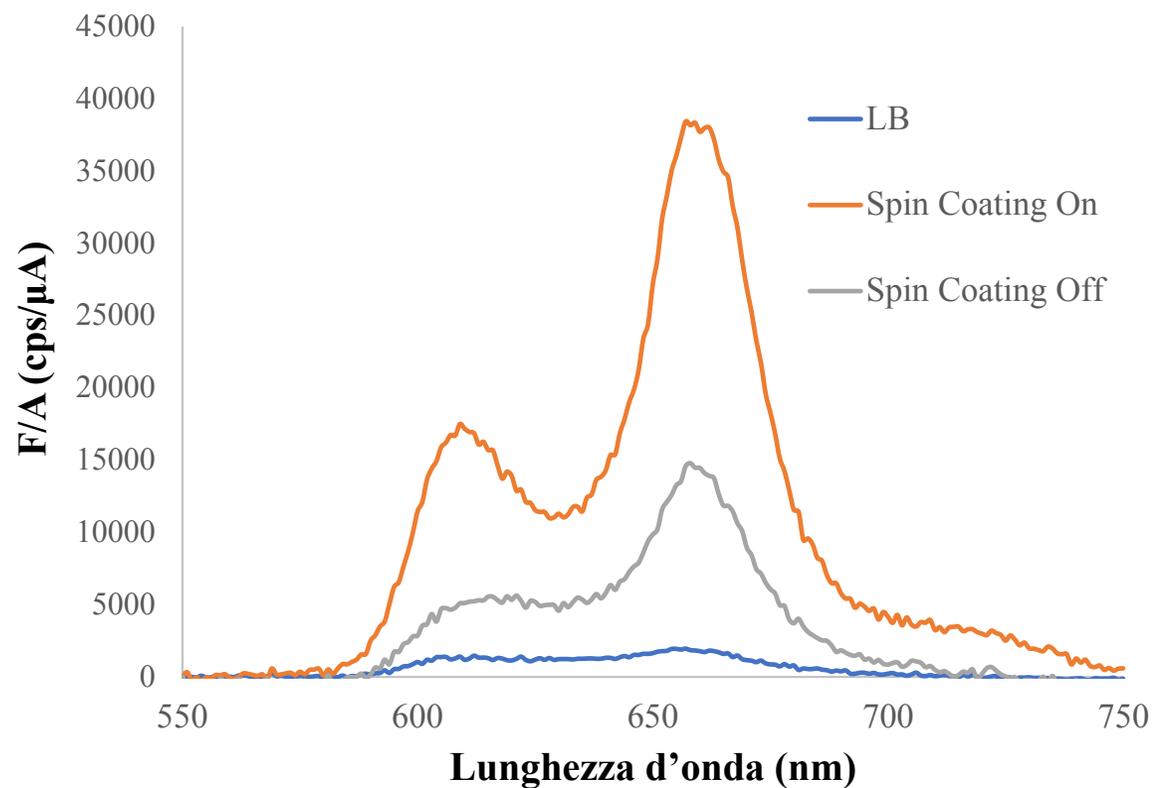
Strato	Direzione	RT
1	↑	1.610
2	↓	0.421
3	↑	0.482

Spettroscopia di assorbimento

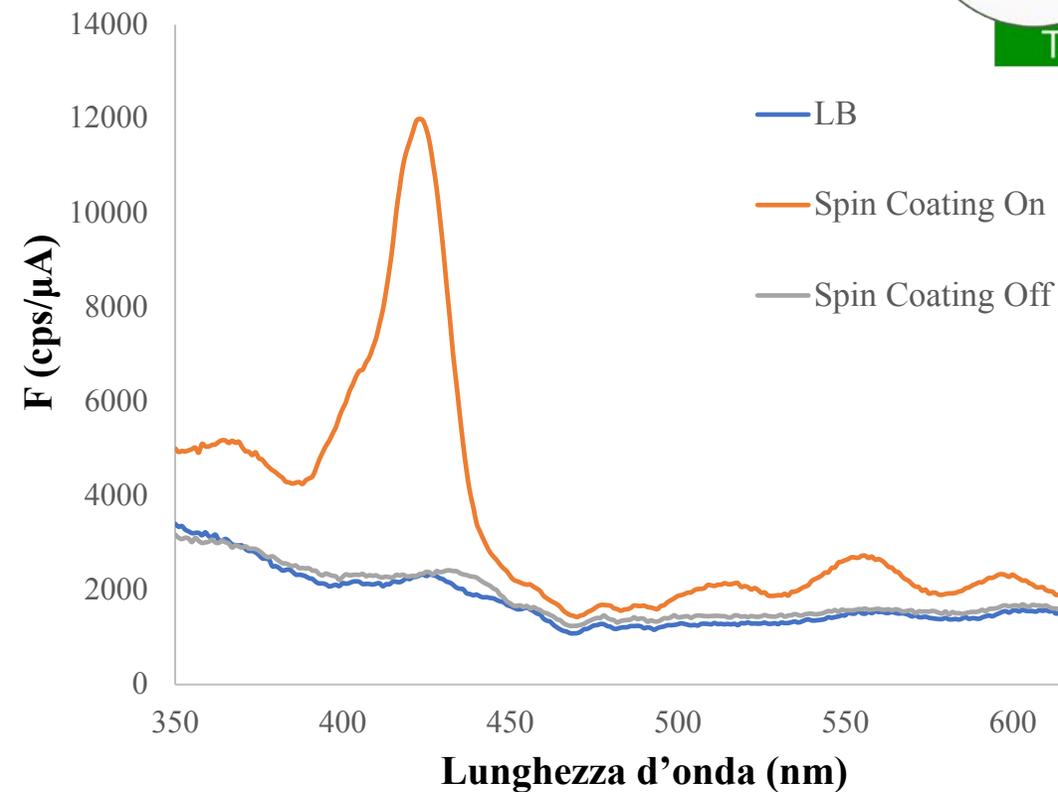




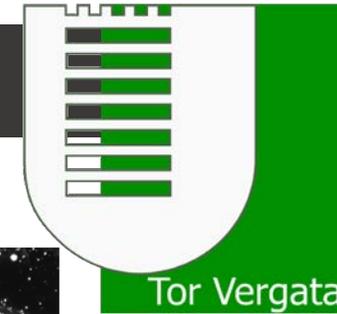
Spettroscopia di fluorescenza



Spettro di emissione

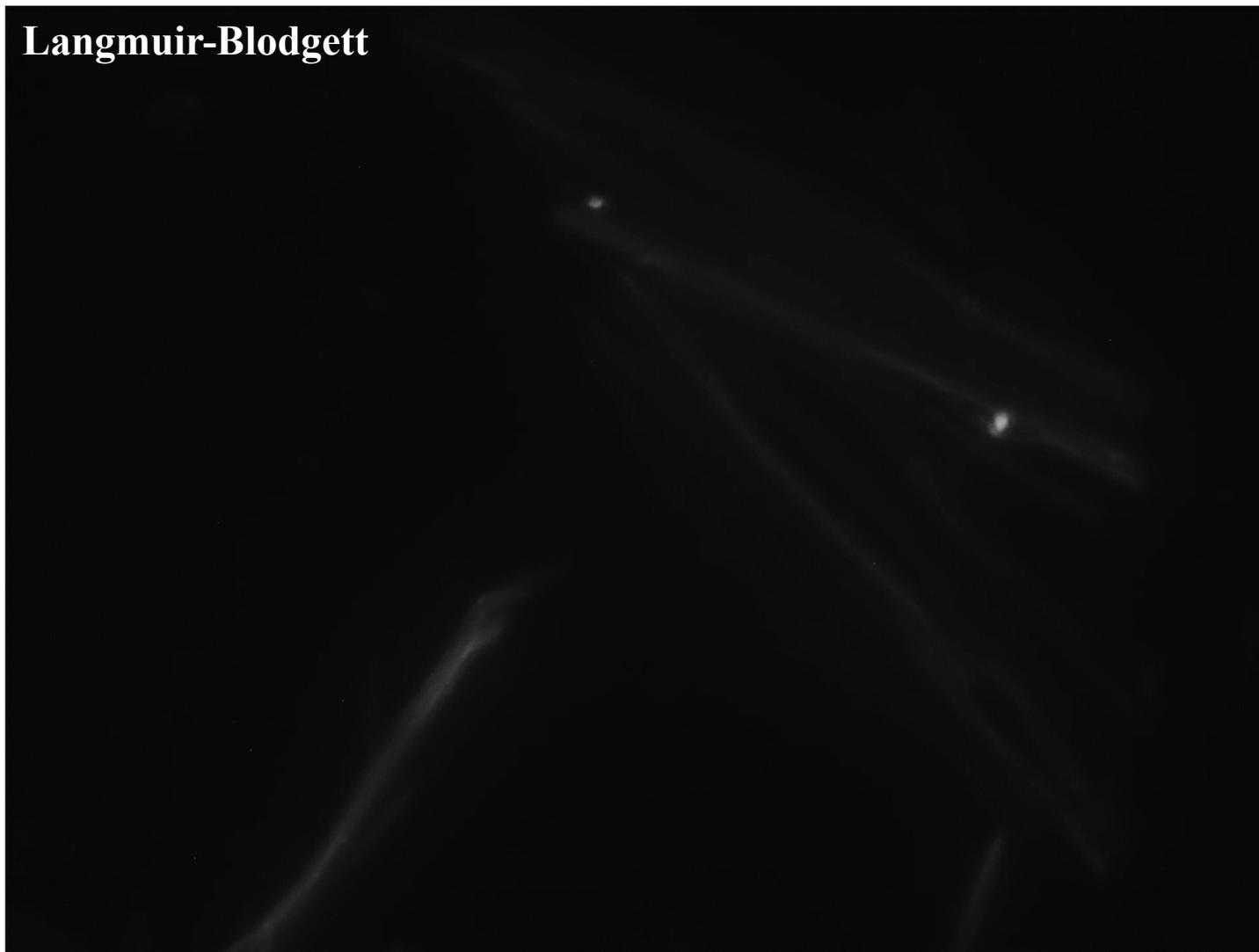


Spettro di eccitazione

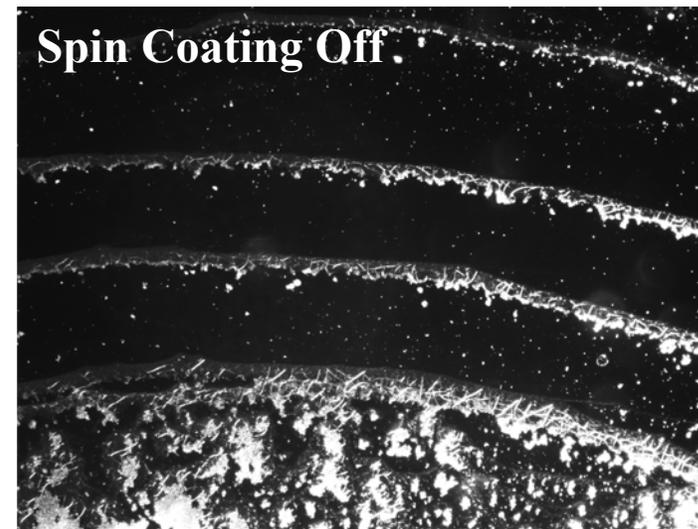


Microscopia a fluorescenza

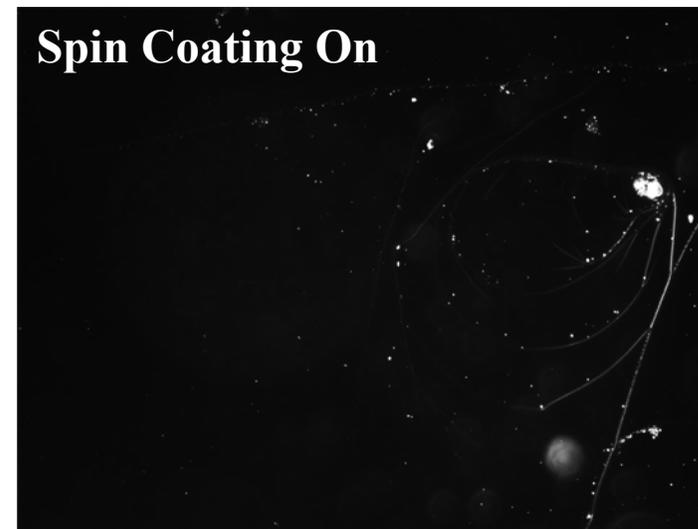
Langmuir-Blodgett



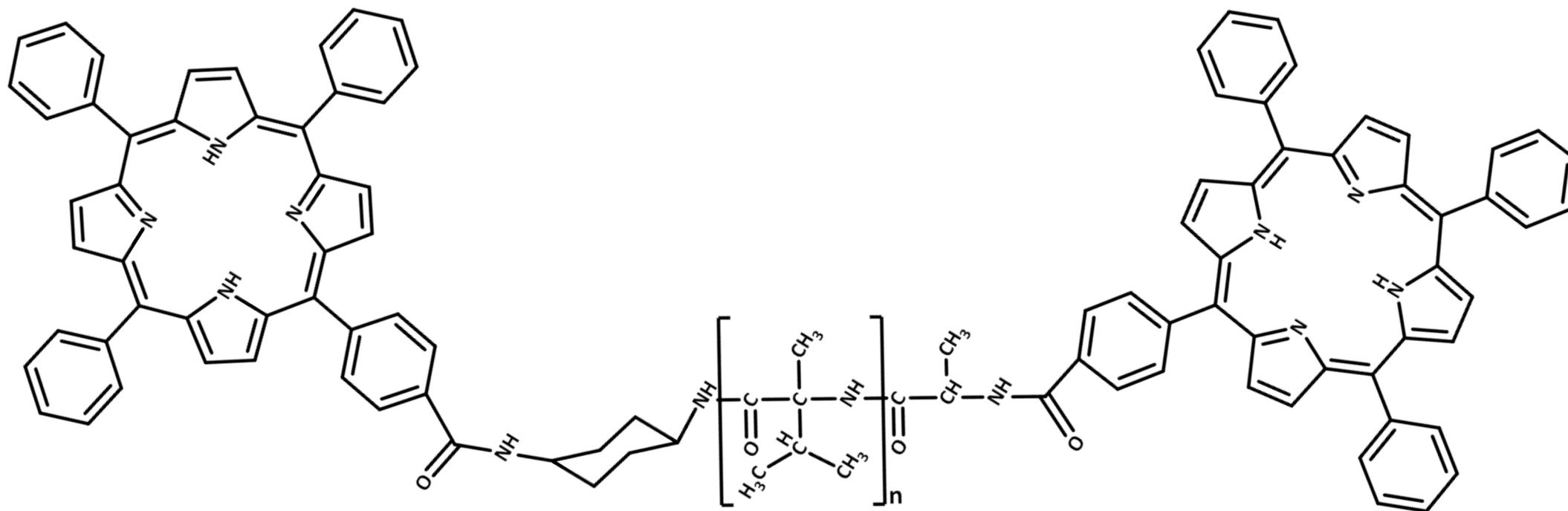
Spin Coating Off



Spin Coating On

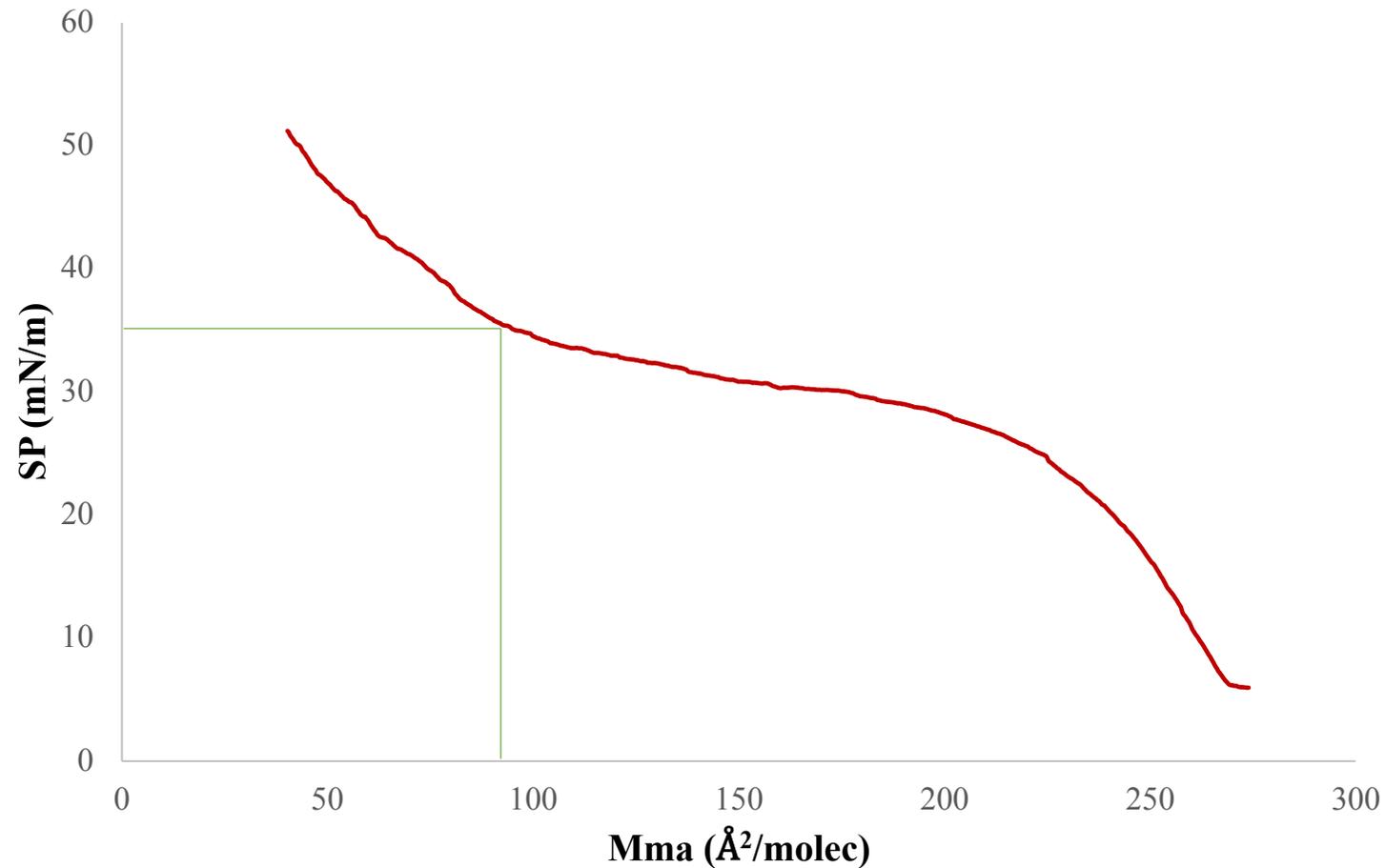


bPP-4



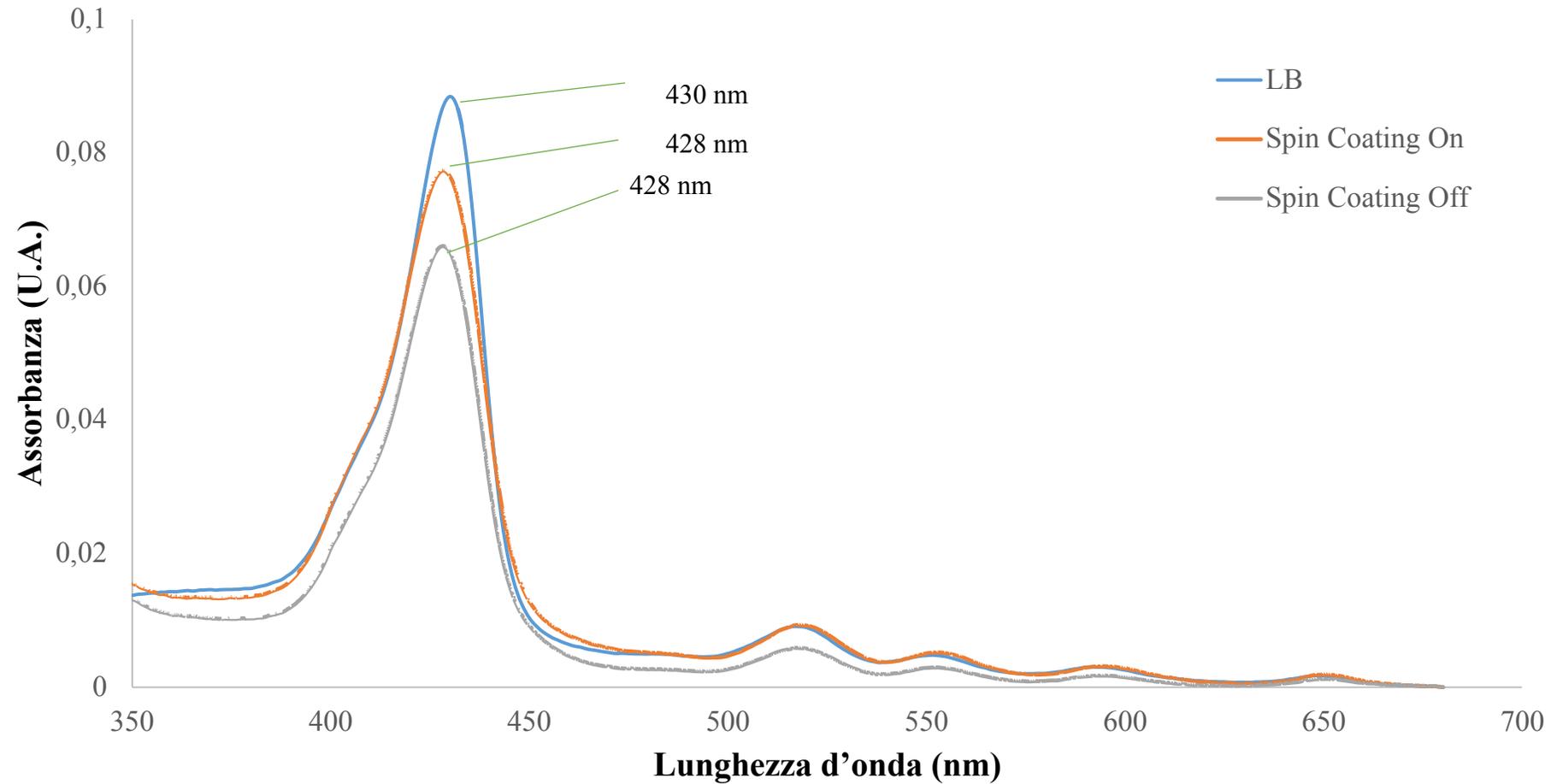
Sistema composta da due TPP legate fra loro da una catena oligopeptidica, costituita da quattro residui di α -metilvalina.

Deposizione con tecnica LB

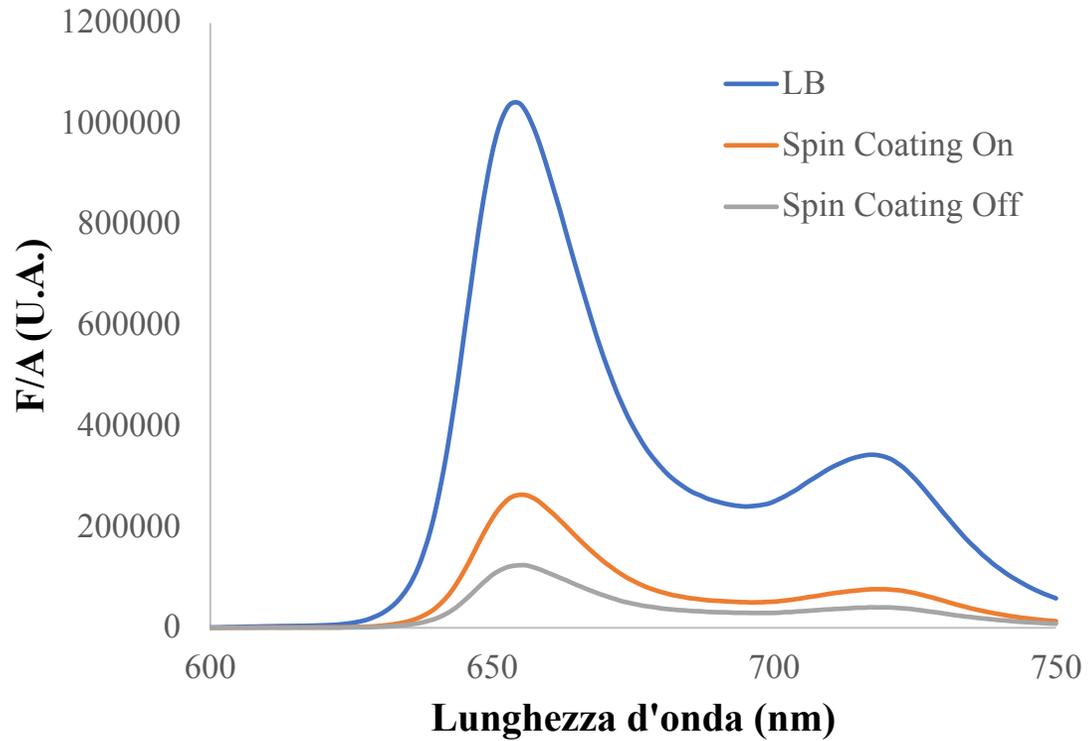


Strato	Direzione	RT
1	↑	0.964
2	↓	0.235
3	↑	0.692

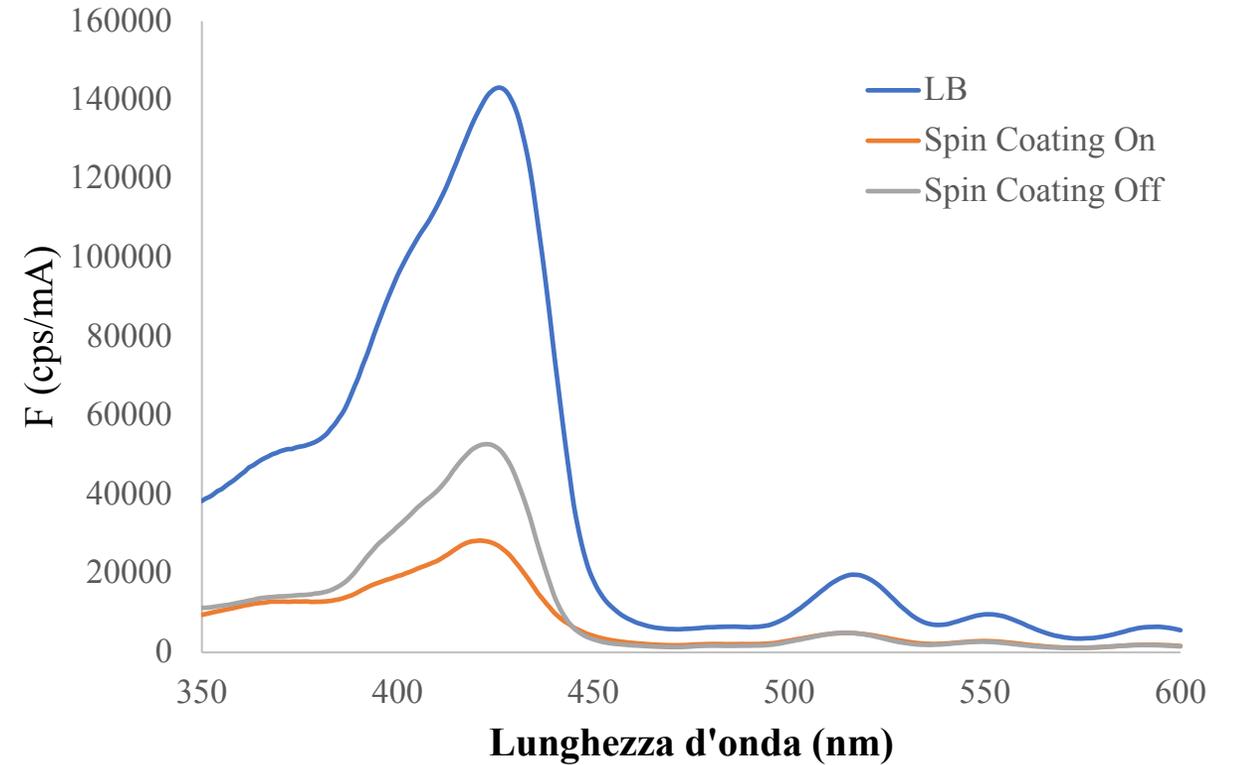
Spettroscopia di assorbimento



Spettroscopia di fluorescenza



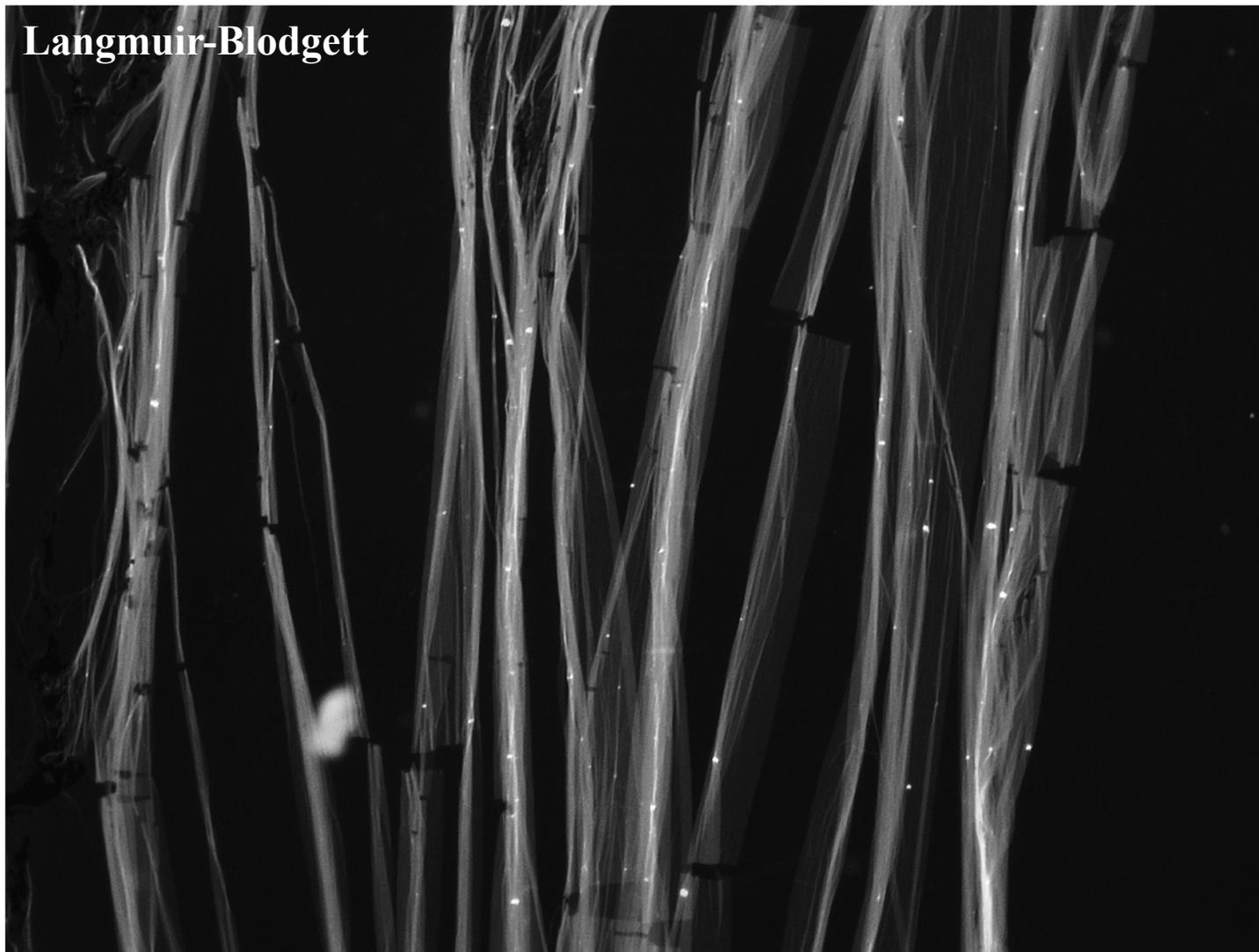
Spettro di emissione



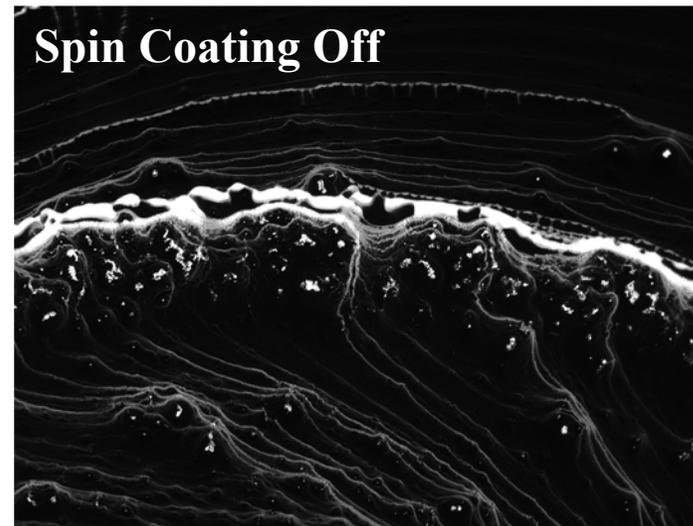
Spettro di eccitazione

Microscopia a fluorescenza

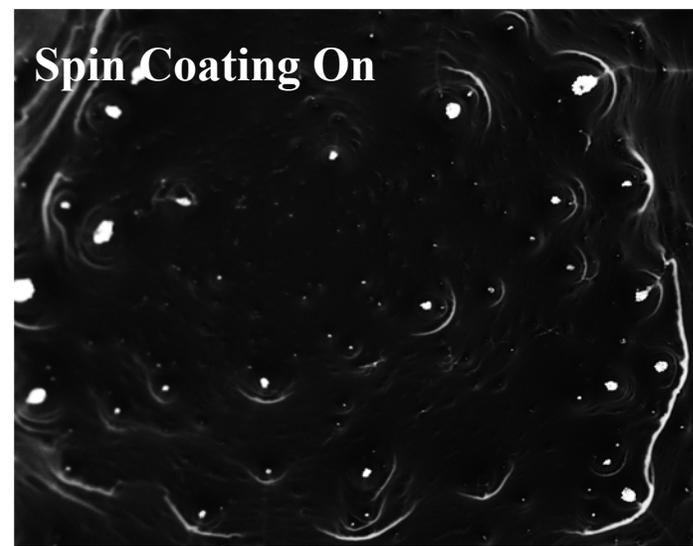
Langmuir-Blodgett



Spin Coating Off



Spin Coating On





Conclusioni

- Sono stati depositati due diversi sistemi porfirinici tramite tecnica Langmuir-Blodgett (LB) e Spin Coating.
- I film ottenuti con LB presentano filamenti micrometrici, la cui crescita ordinata è guidata dalla crescente pressione superficiale.
- Le strutture globulari ottenute per Spin Coating sono il risultato di una crescita disordinata a seguito dell'evaporazione veloce del solvente.

Grazie per
l'attenzione

