

Concentratori solari siliconici

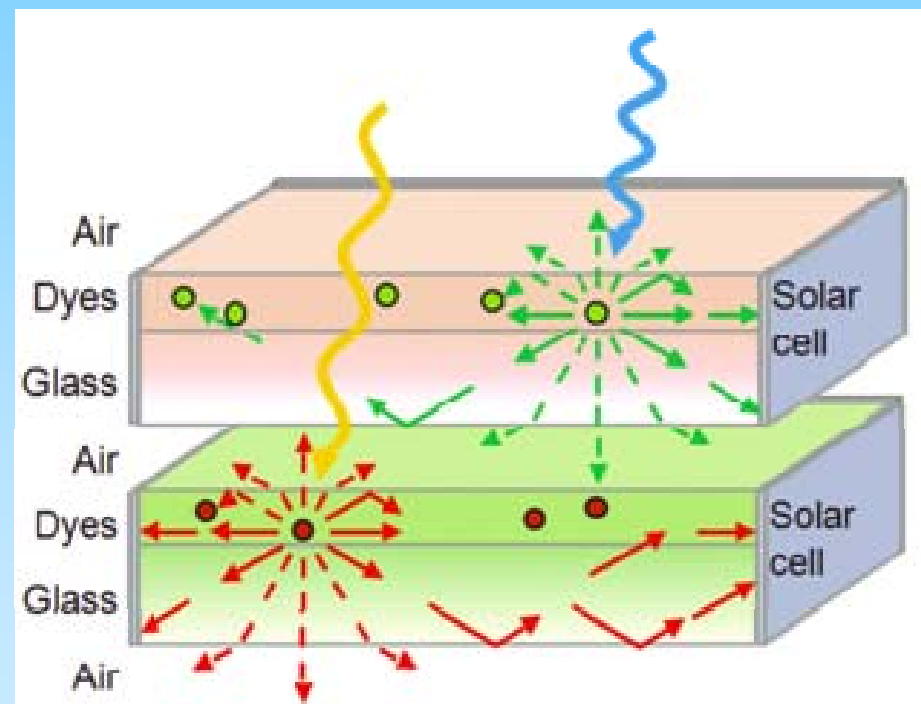
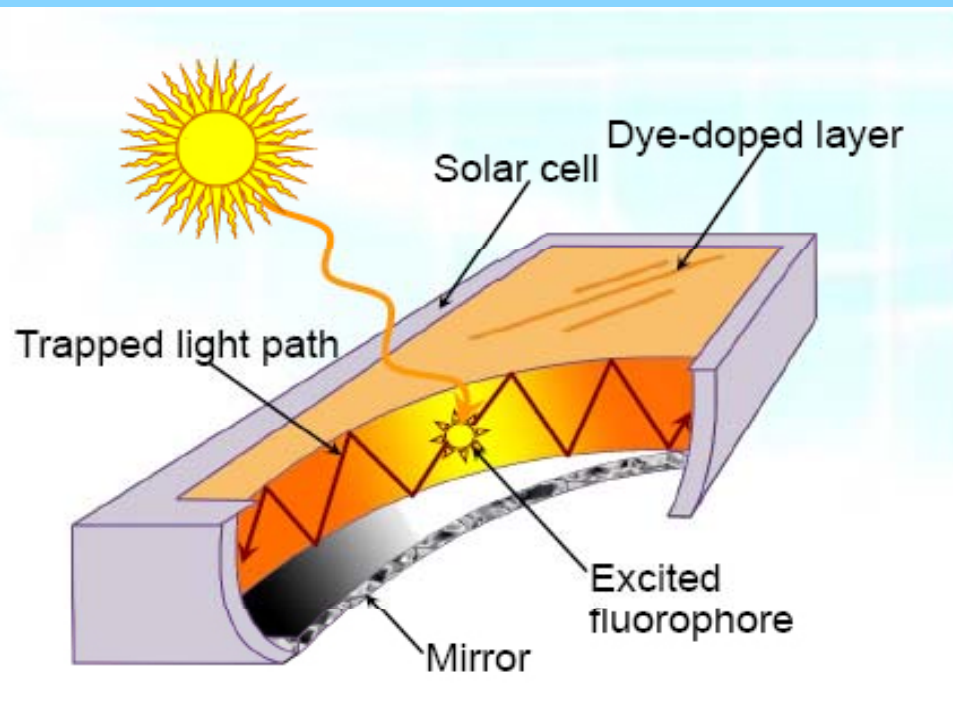
Modulo n°5: Studio e messa a punto di rivelatori a scintillazione



Obiettivi

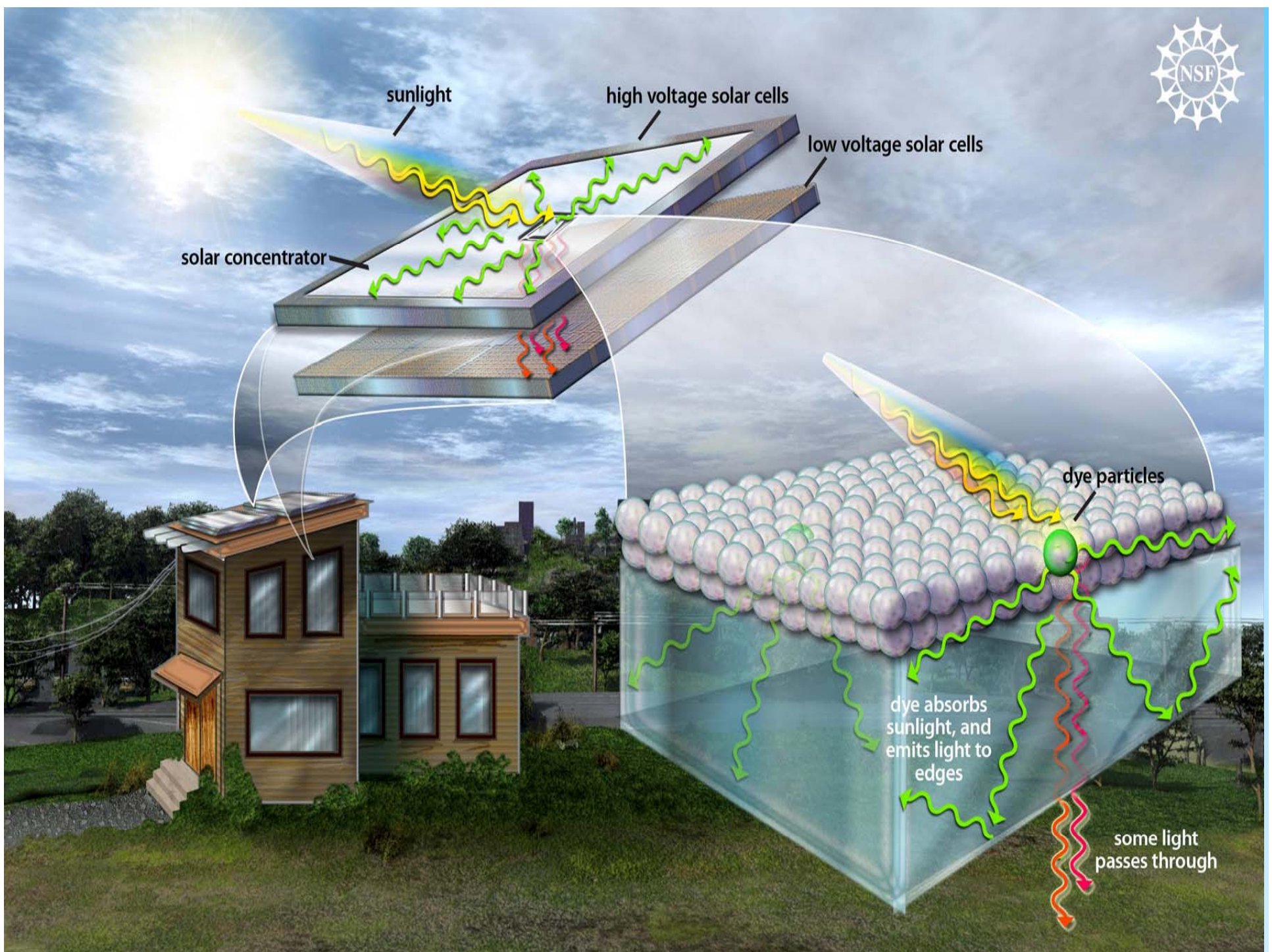
Misurare la quantità di energia prodotta da una cella solare laterale a contatto con un campione di materiale silconico sintetizzato in laboratorio.

Premesse teoriche





sunlight
high voltage solar cells
low voltage solar cells
solar concentrator



dye particles

dye absorbs sunlight, and emits light to edges

some light passes through

La nostra esperienza

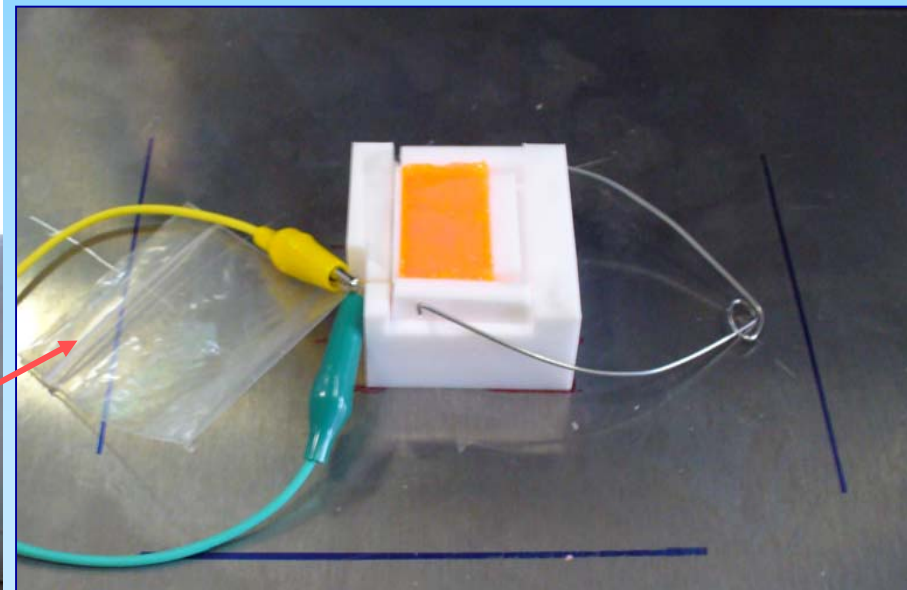
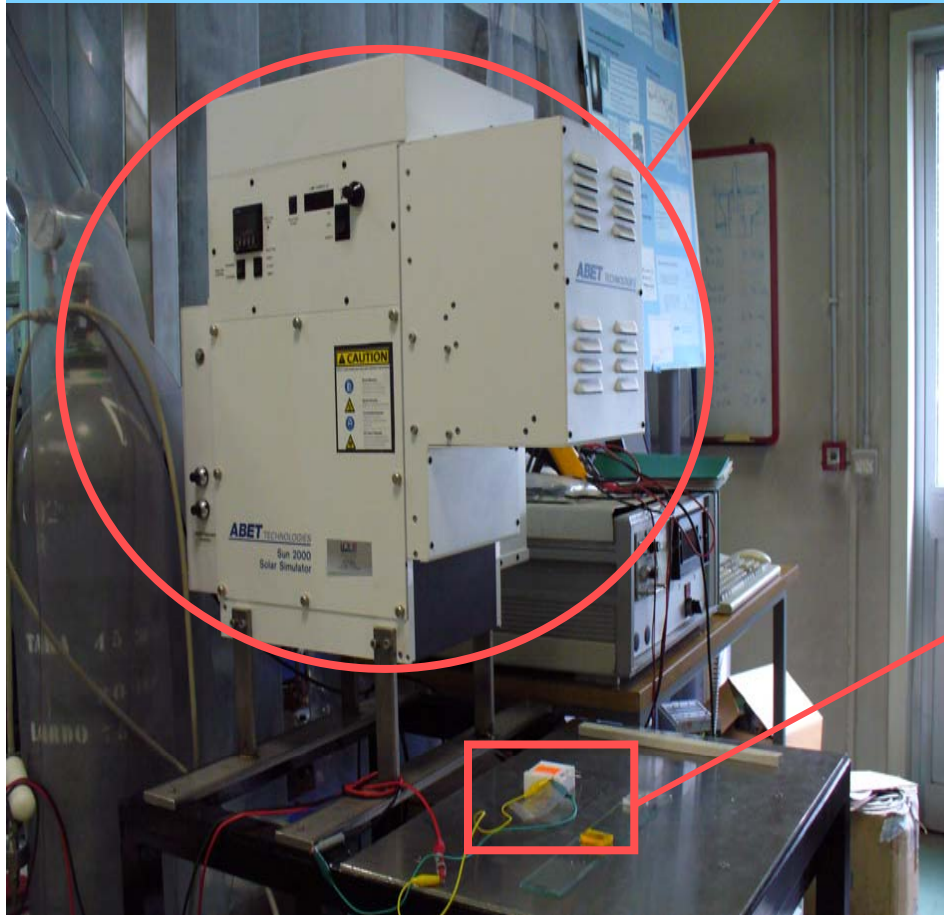
Amperometro

Voltmetro

Reostato



Simulatore solare

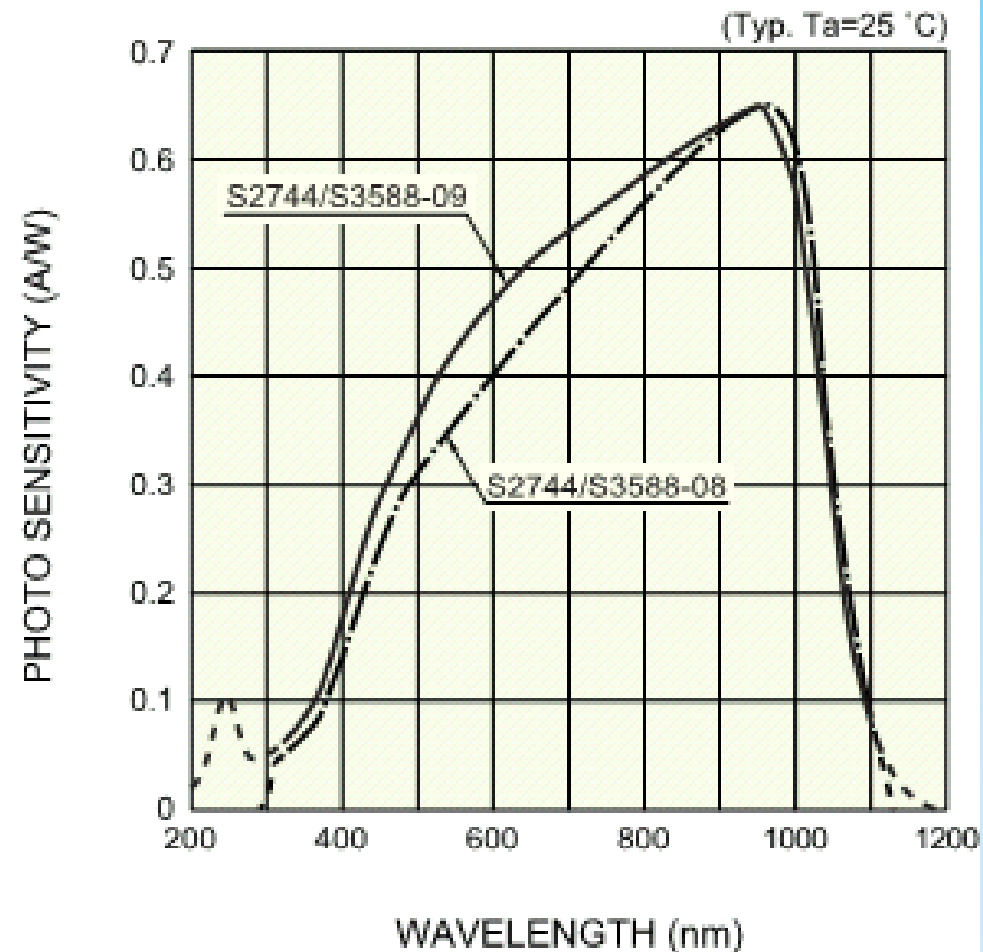


SILICONI CON DYE LUMOGEN

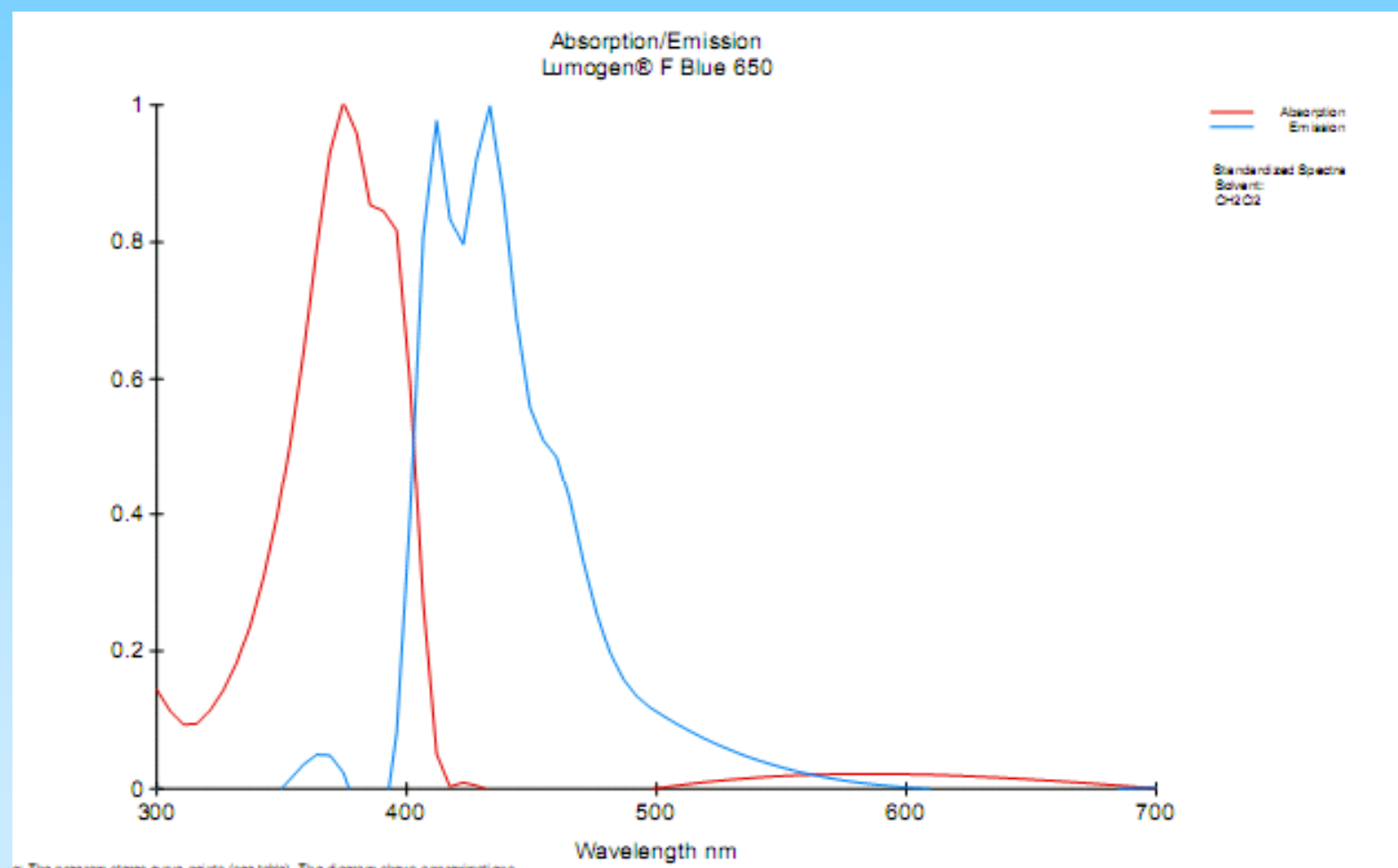


Sensibilità della cella fotovoltaica

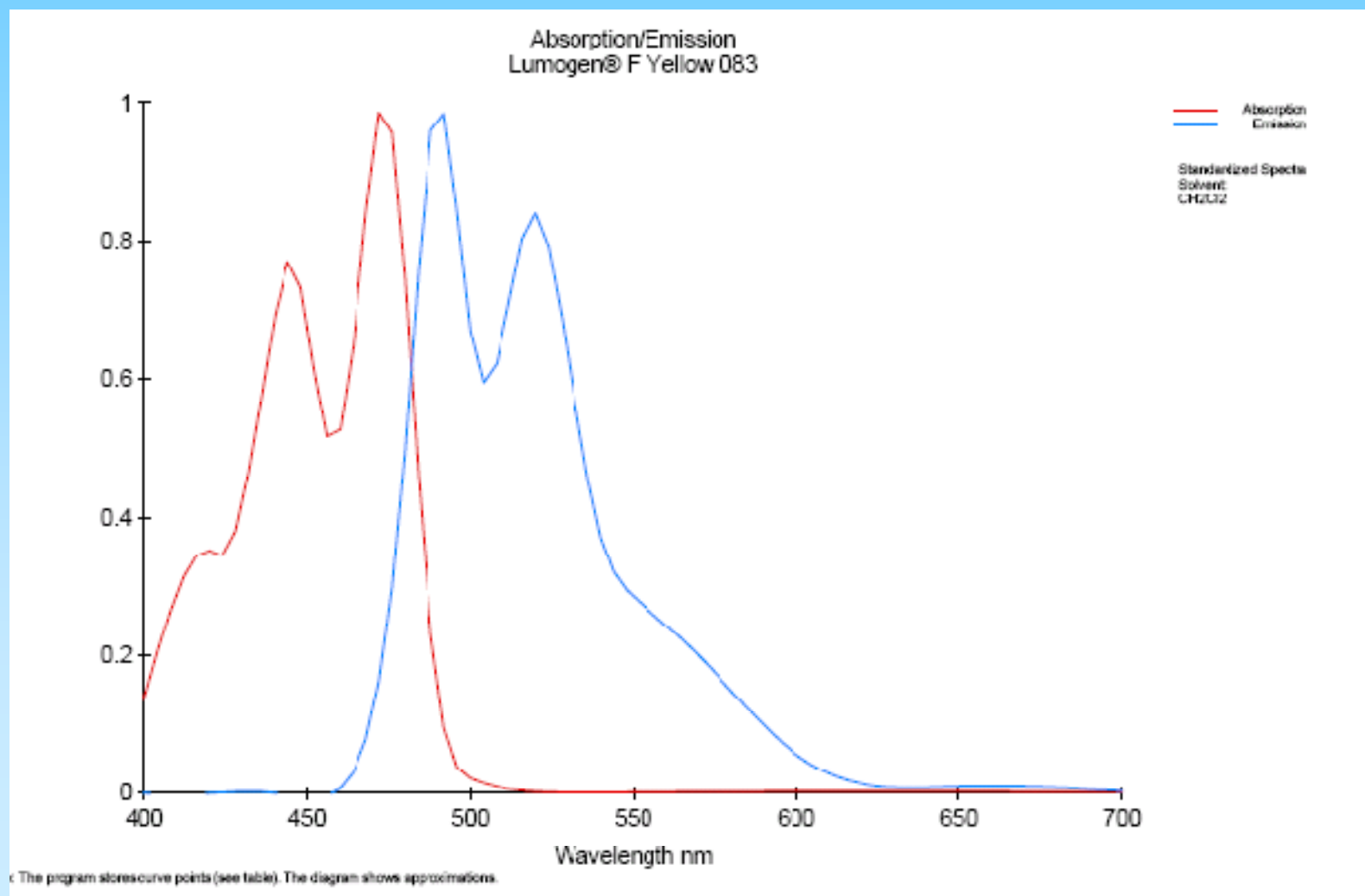
■ Spectral response



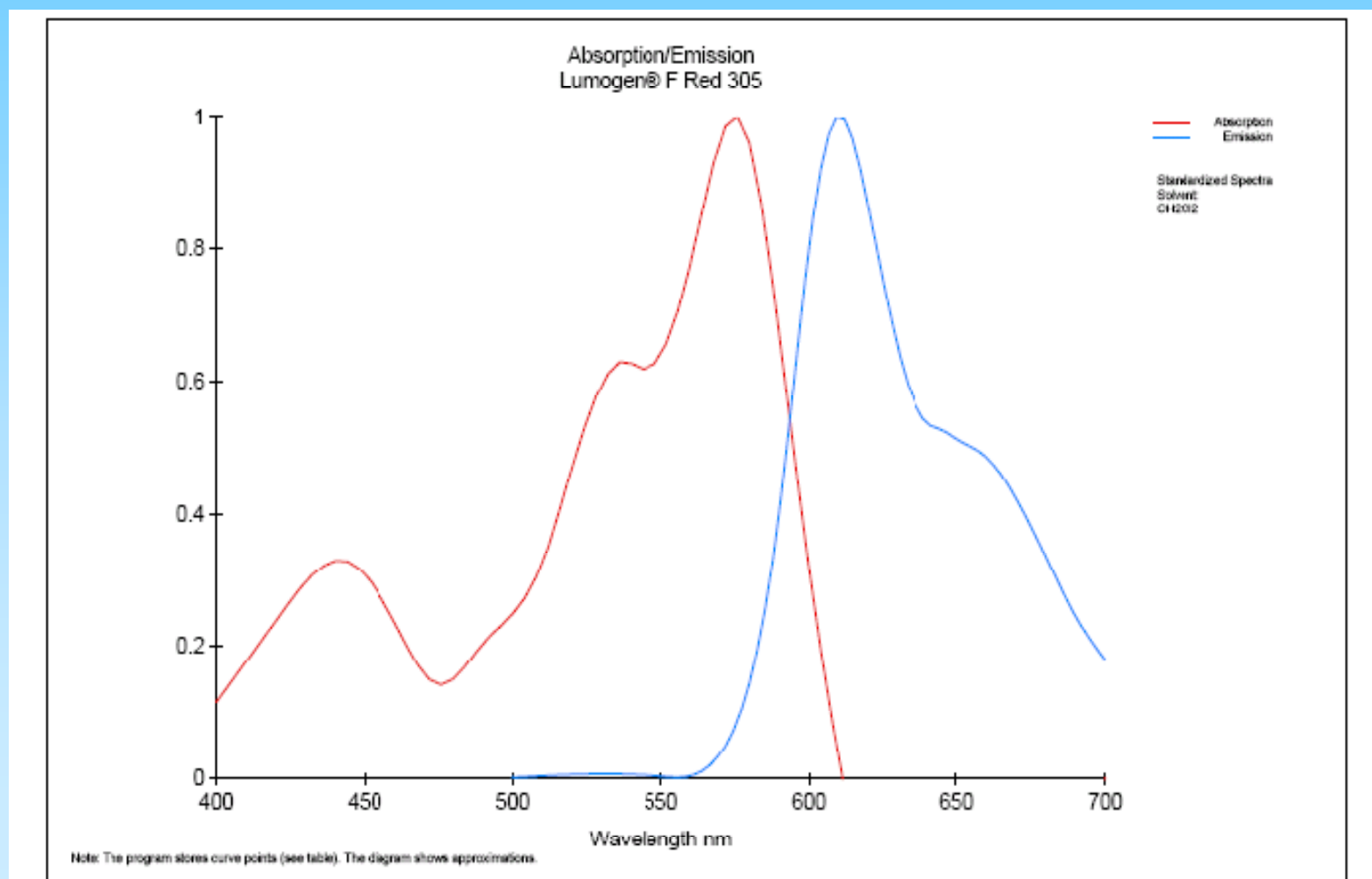
Lumogen blue



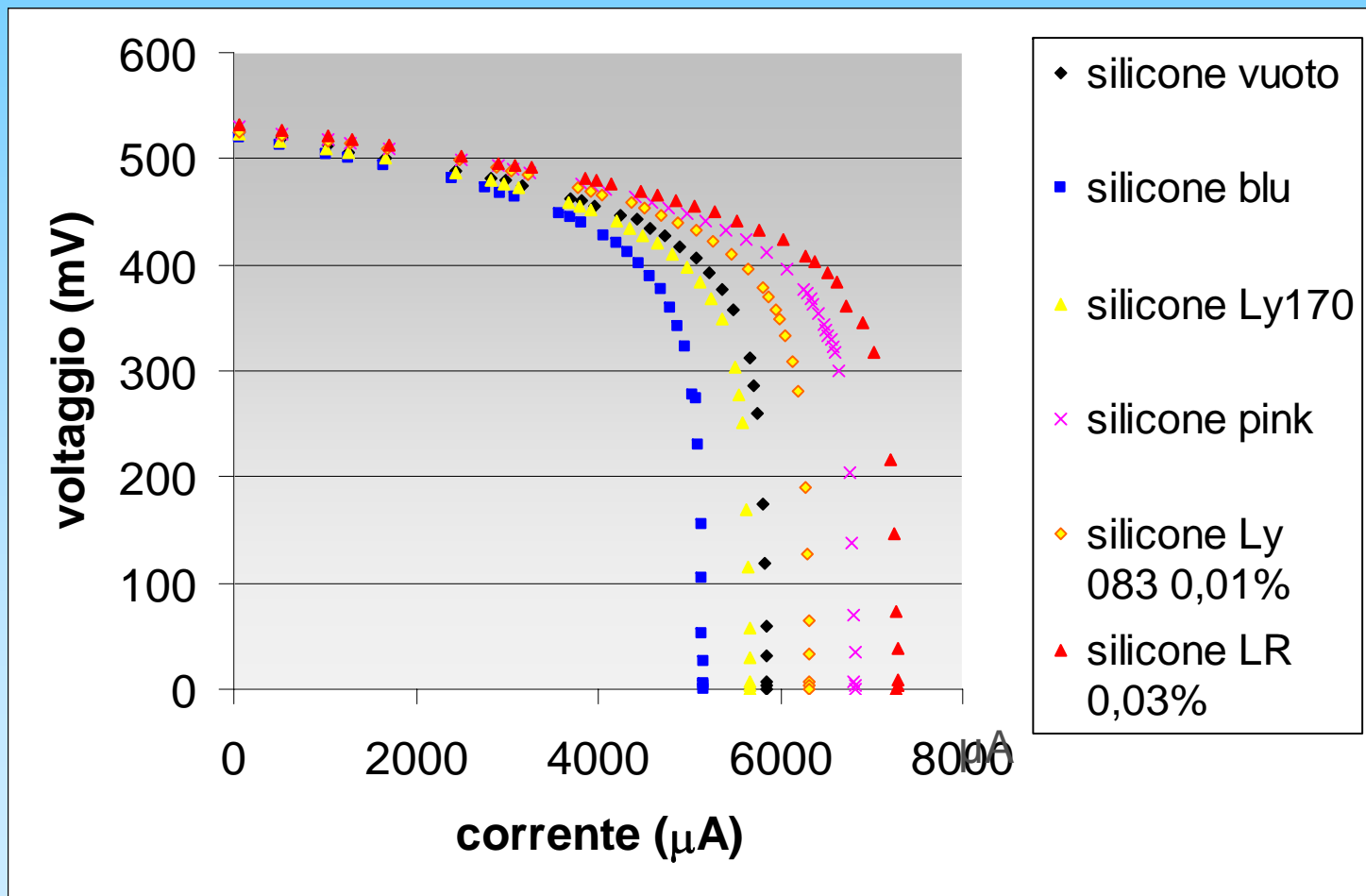
Lumogen Yellow

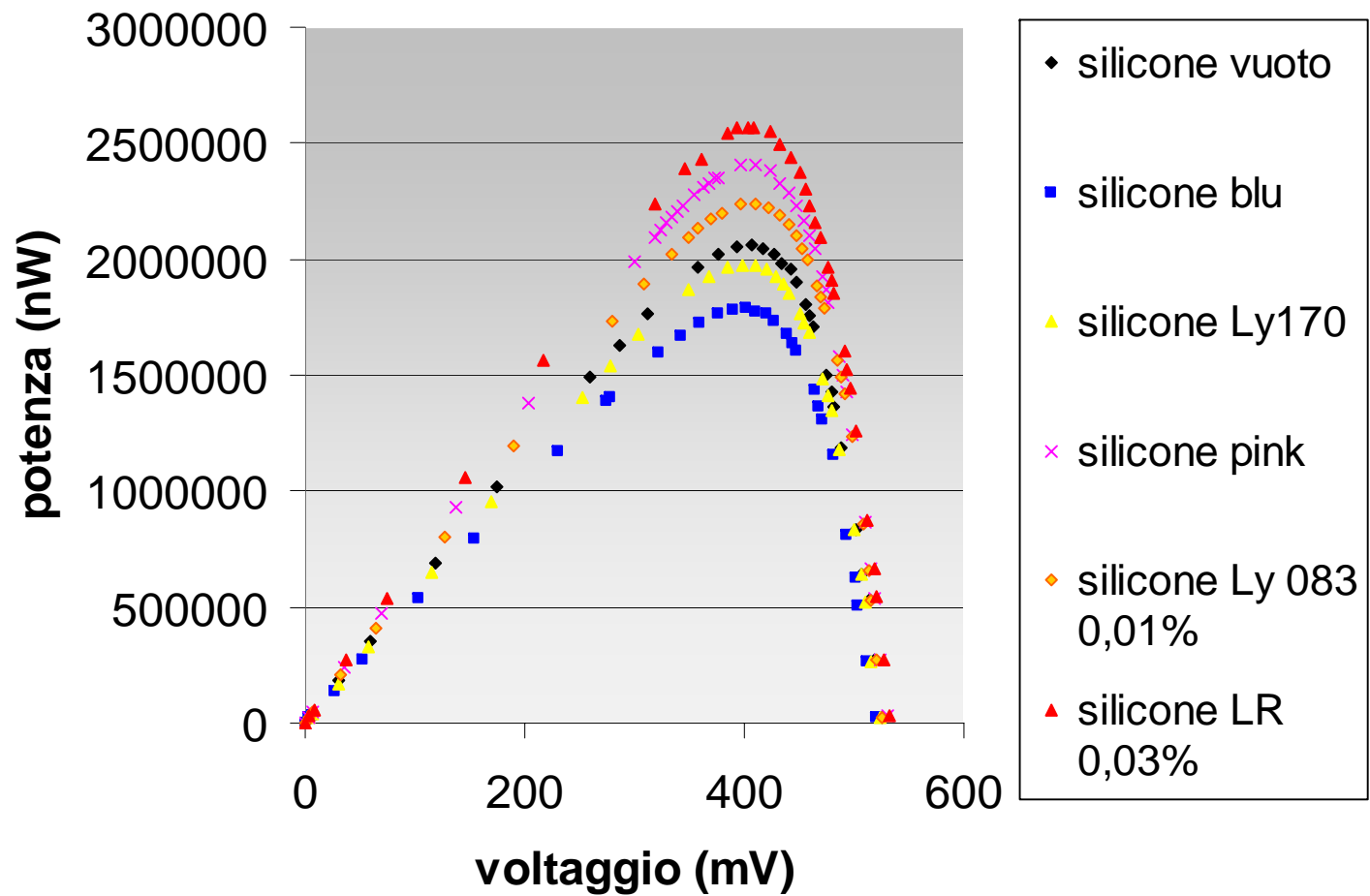


Lumogen Red

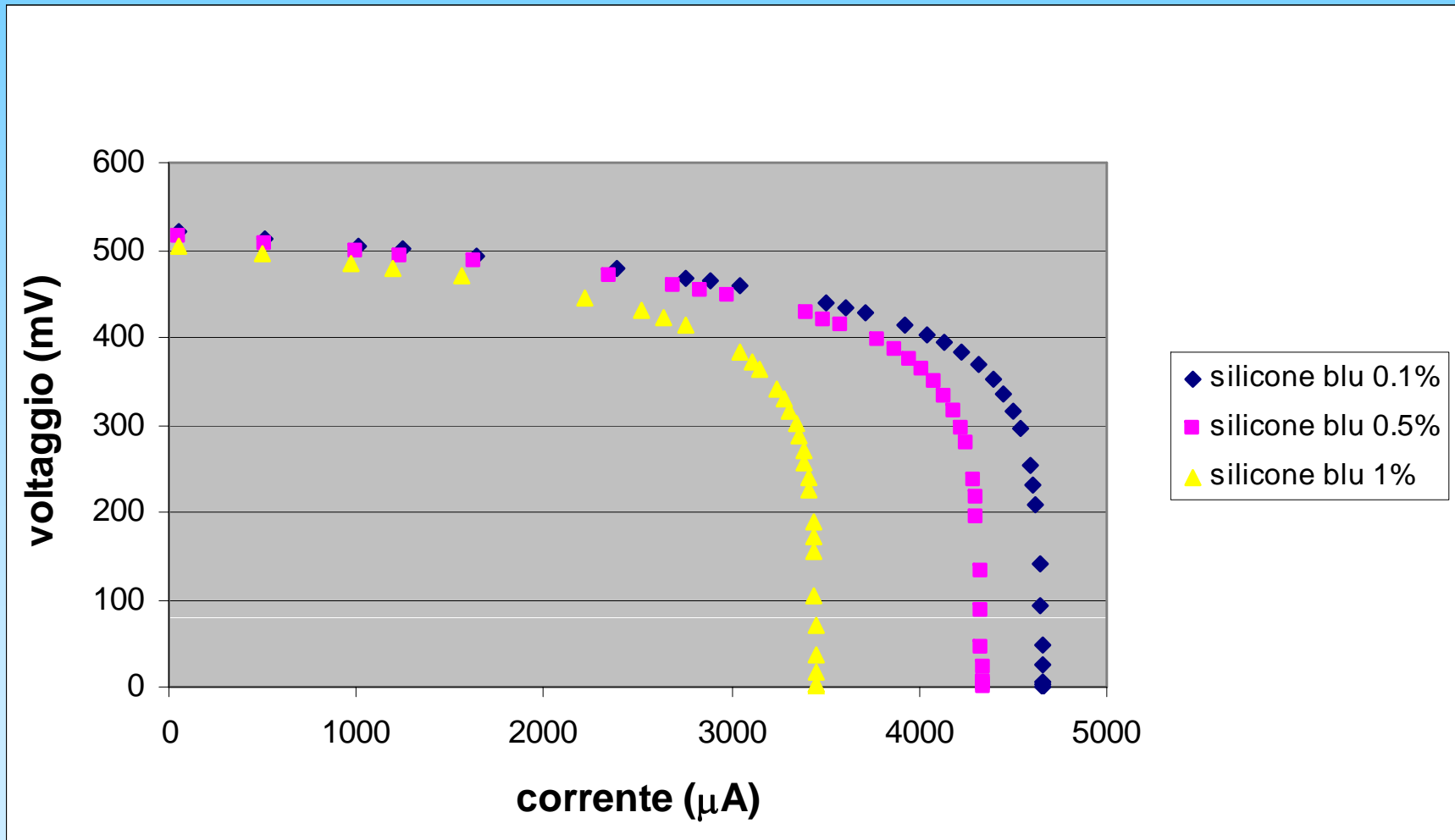


Risultati ottenuti





Variazione della resa in funzione delle diverse concentrazioni



Grazie per l'attenzione

Bertosin Eva

Bochicchio Matteo

Trevisan Alberto