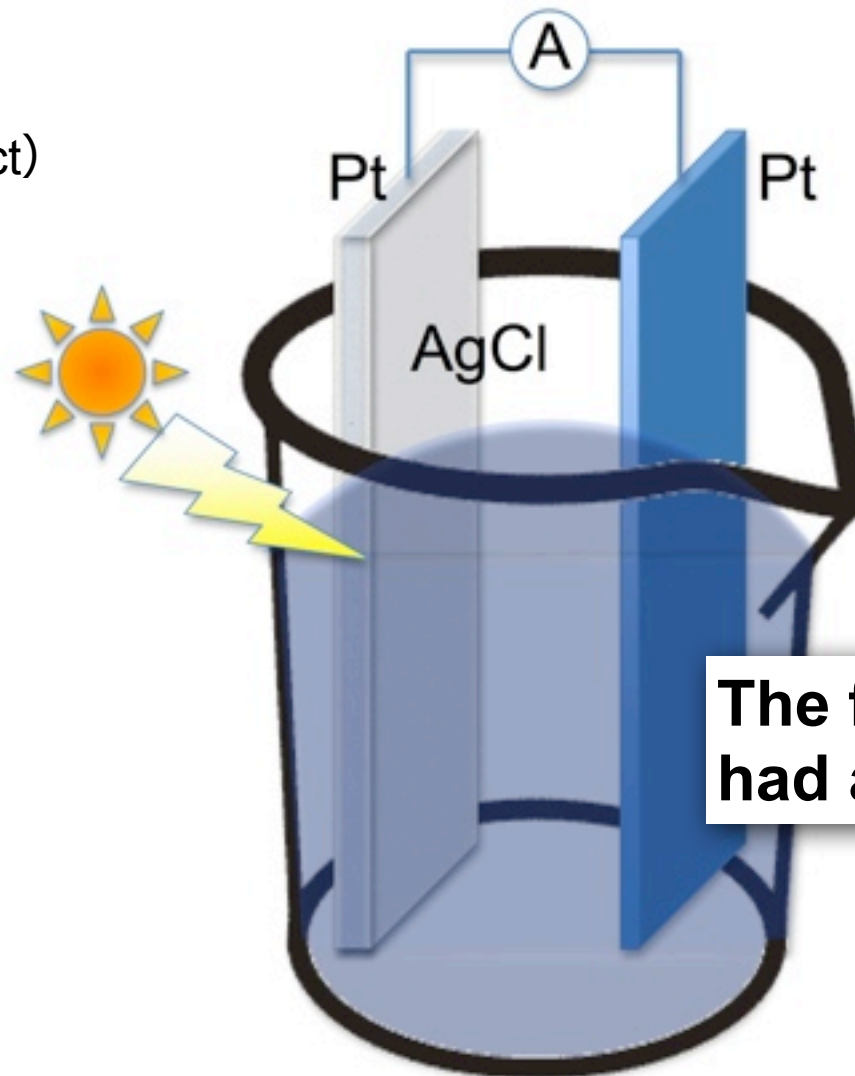


**Did you know?**

**The history of DSC**

# Becquerel Cell (1839)

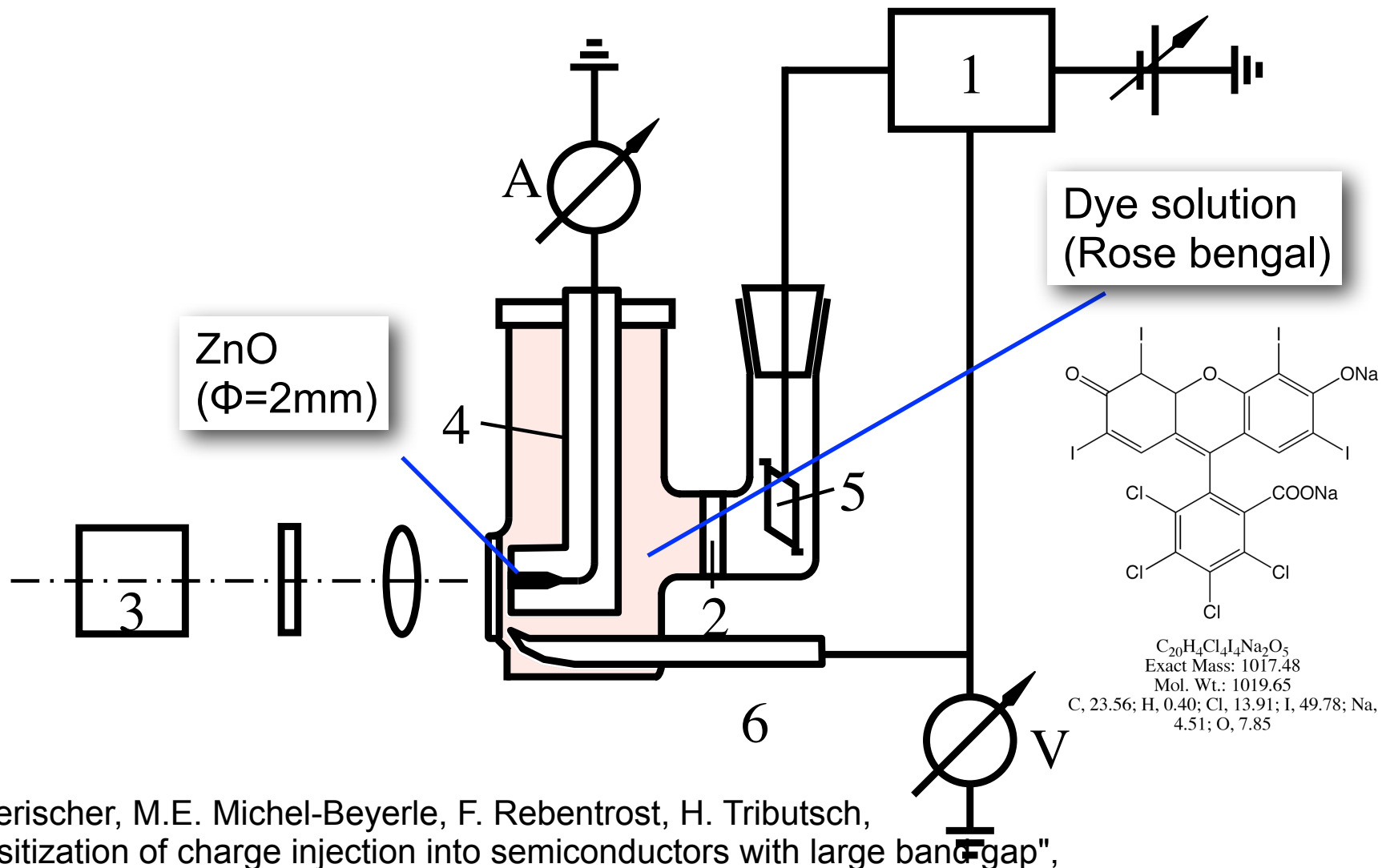
(Becquerel Effect)



**The first solar cell  
had an electrolyte!**

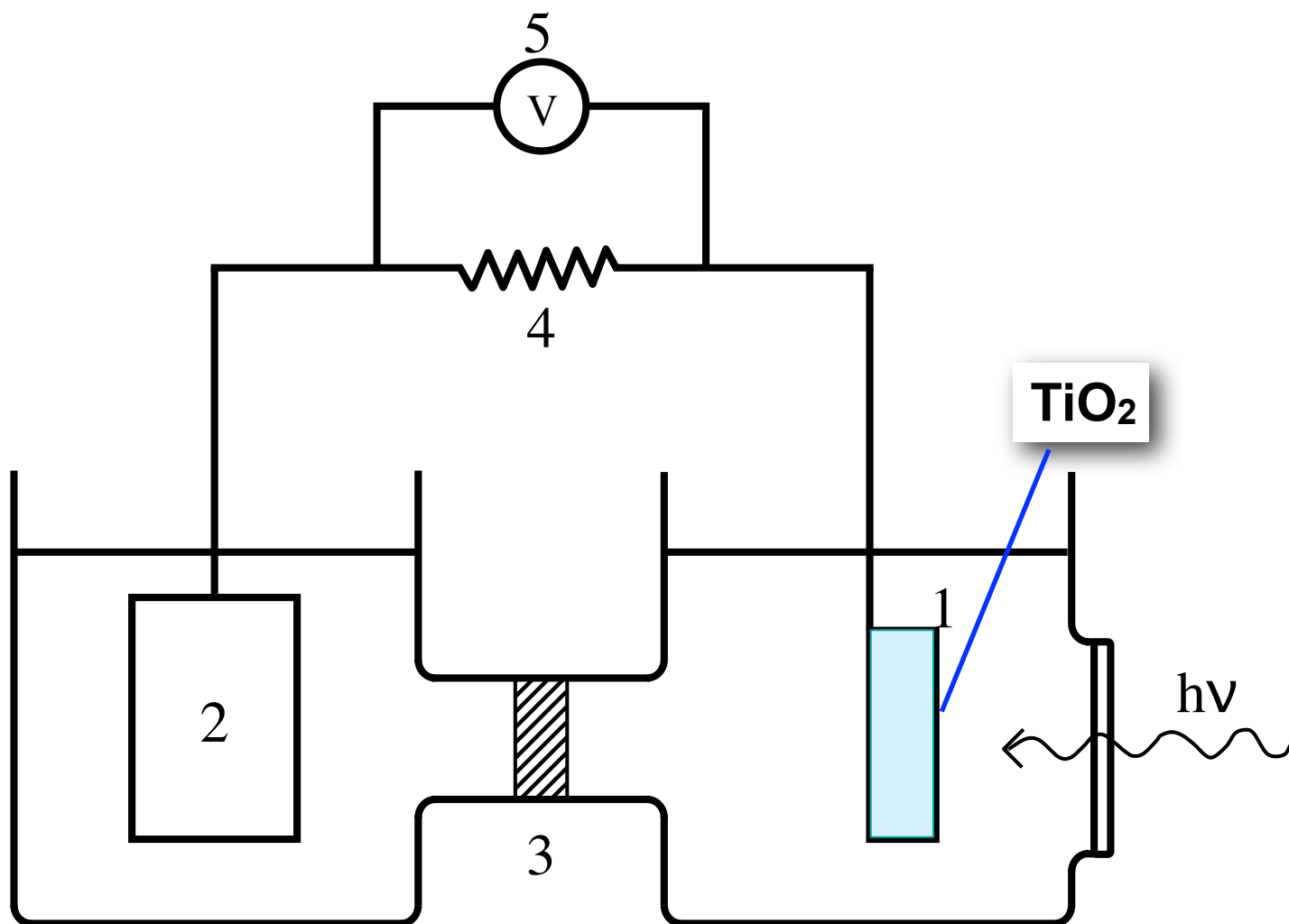
E. Becquerel,  
"Mémoire sur les effets électriques produits sous l'influence des rayons solaires",  
Comptes Rendus, 9, 561–567 (1839)

# Gerischer Cell (1968)

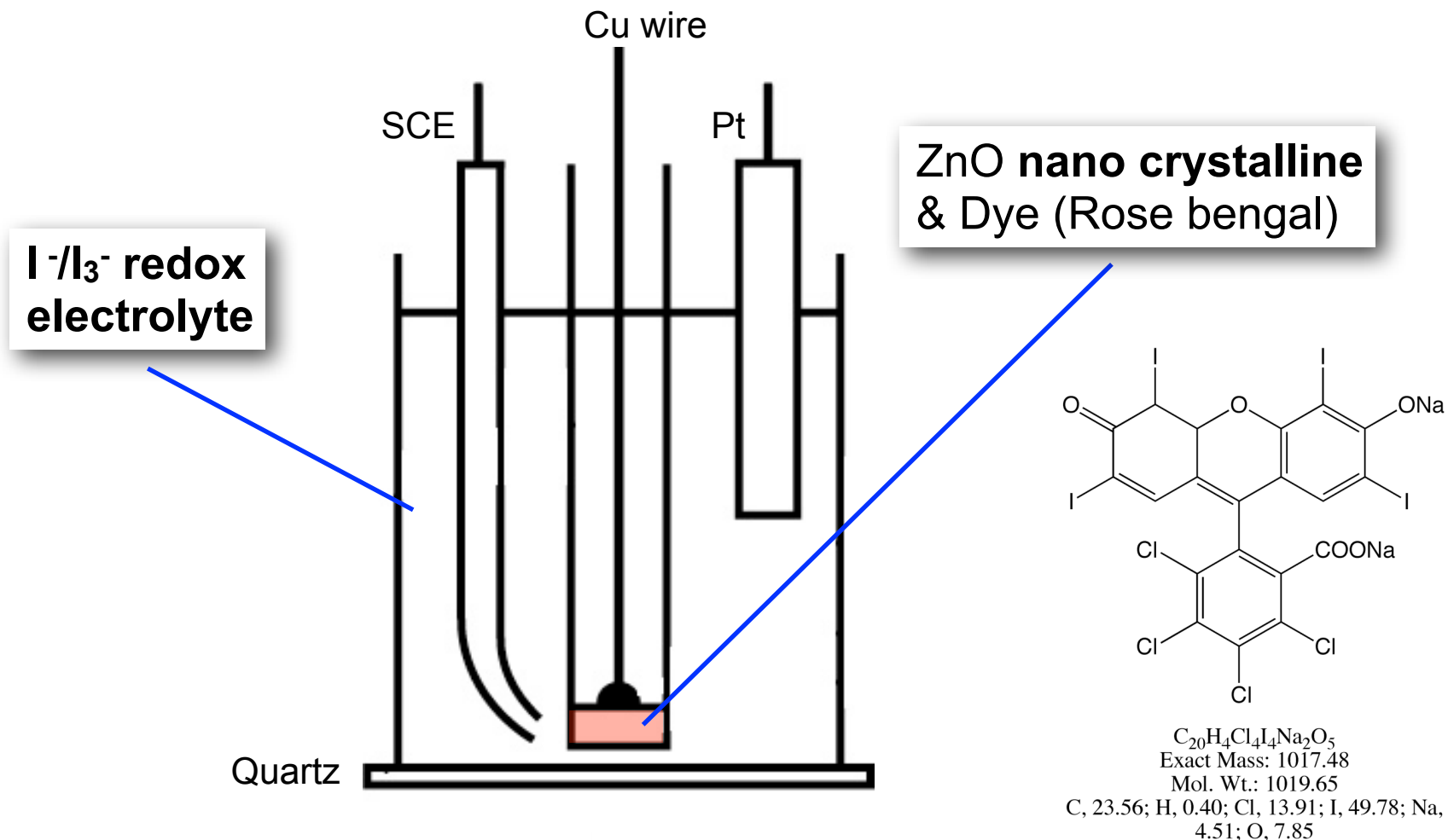


H. Gerischer, M.E. Michel-Beyerle, F. Reberstrost, H. Tributsch, "Sensitization of charge injection into semiconductors with large band gap", *Electrochimica Acta*, 13(6), 1509-1515 (1968).

# Honda-Fujishima Cell (1969)



# Tsubomura-Matsumura Cell (1976)



H.Tsubomura, M.Matsumura, Y.Nomura and T.Amamiya,  
“Dye sensitised zinc oxide: aqueous electrolyte: platinum photocell.”,  
Nature, 261, 402-403 (1976).

# Tennakone Cell (1988)

Semicond. Sci. Technol. 3 (1988) 382-387. Printed in the UK

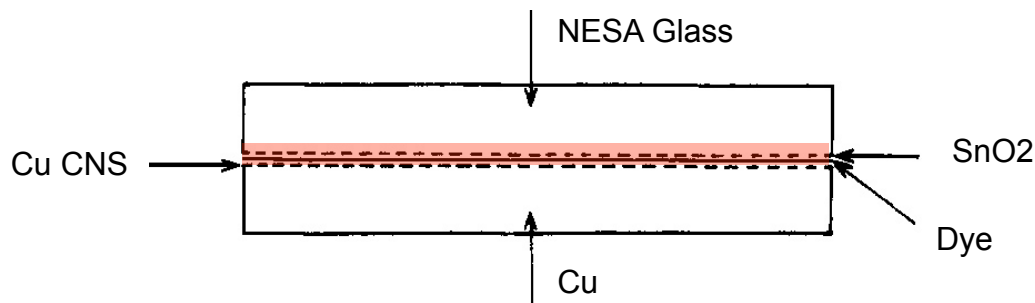
## Dye-sensitised solid-state photovoltaic cells

**K Tennakone†‡, K P Hewaparakkrama‡, M Dewasurendra‡  
A H Jayatissa‡ and L K Weerasena‡**

† Institute of Fundamental Studies, Hantana, Kandy, Sri Lanka

‡ Department of Physics, University of Ruhuna, Matara, Sri Lanka§

Received 23 October 1987, in final form 26 November 1987

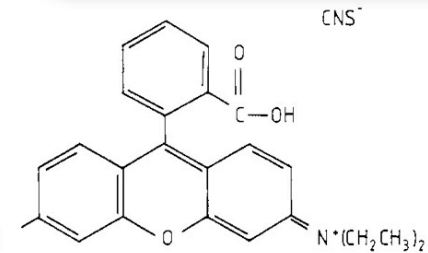


**Figure 3.** The construction of the CuCNS/dye/SnO<sub>2</sub> cell.

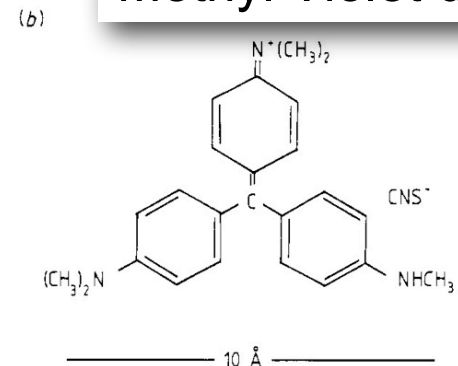
## Planar DSSC!

K. Tennakone, K.P.Hewaparakkrama, M.Dewasurenda A.H Jayatissa and L.K. Weerasena  
“Dye-sensitised solid-state photovoltaic cell.”,  
Semicond. Sci. Technol., 3, 382-387 (1988).

### Rhodamine dye

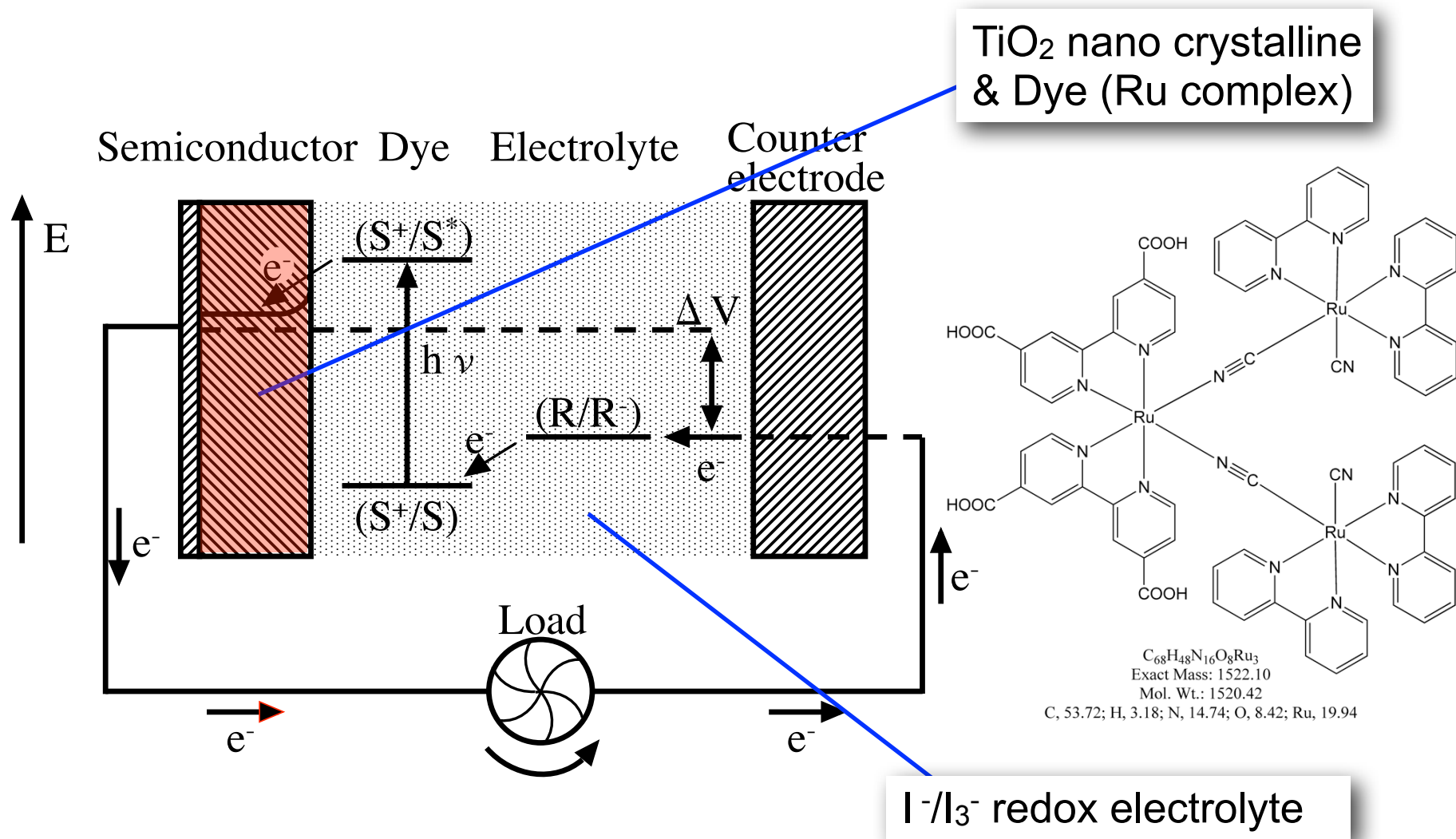


### Methyl Violet dye



**Figure 2.** Thiocyanates of Rhodamine B (a) and Methyl Violet (b).

# Grätzel Cell (1991)



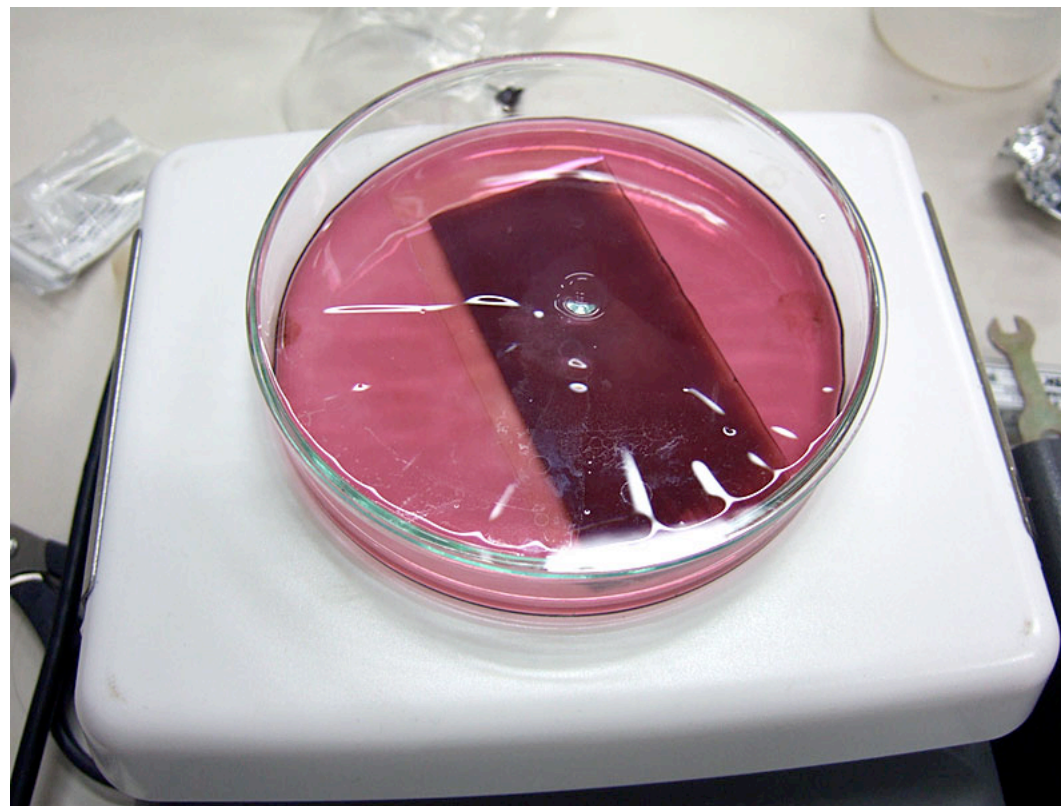
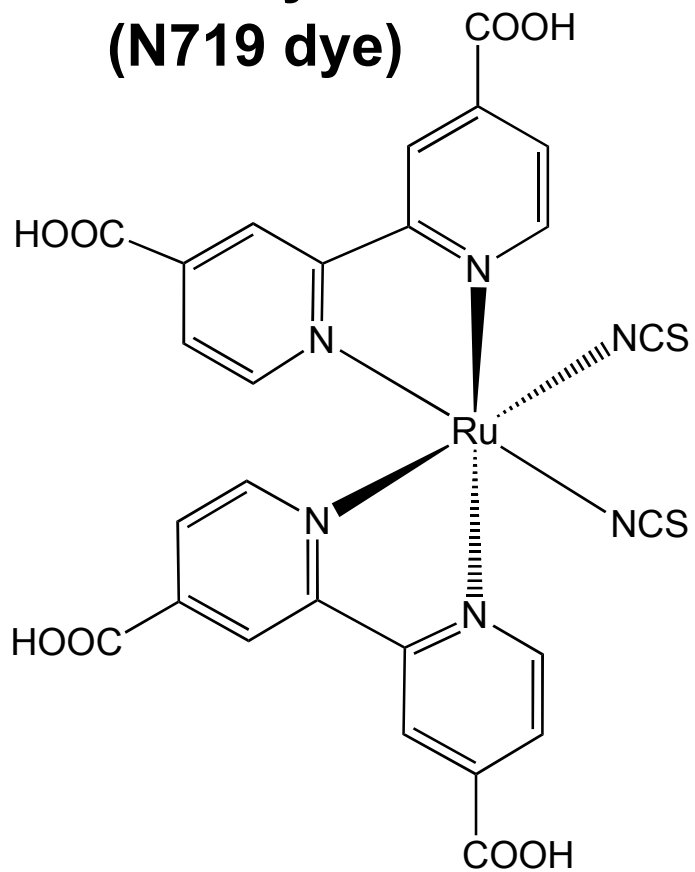
TiO<sub>2</sub> nano crystalline & Dye (Ru complex)

I<sup>-</sup>/I<sub>3</sub><sup>-</sup> redox electrolyte

B. O'Regan and M. Grätzel, Nature, 353(24), 737-740 (1991).

# Grätzel Cell (1991)

**N3 dye  
(N719 dye)**



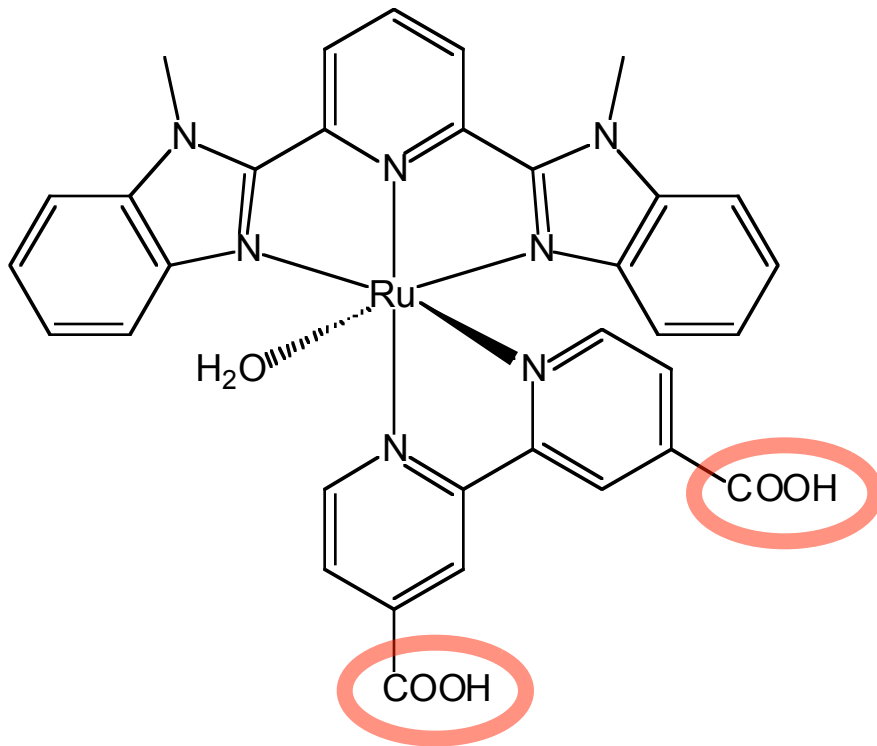


# Grätzel Cell (1991)

Dr. Nazeeruddin



**N1 dye**



**N2 dye**

