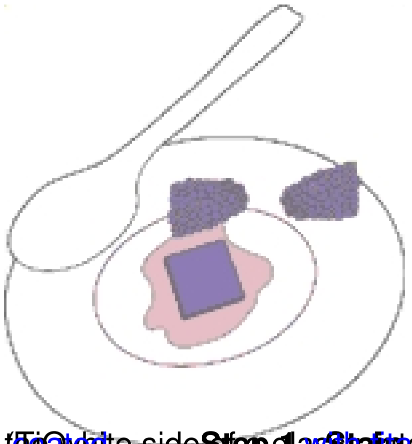
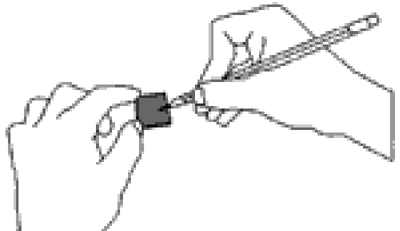
"Cycles of energy and materials have existed on the Earth for billions of years. In a few hundred years, we have come to dominate and control many of these cycles. Our search for artificial photosynthesis is, therefore, not merely to present ourselves with alternatives for powering our society, but it is a search for our place in the Earth's biosphere."



Step 1: Stain the Titanium Dioxide with the Natural Dye: Stain the coated side of glass with the dye [illegible] This glass has been previously coated with a transparent conductive layer (SnO_2), as well as a porous TiO_2 [illegible]

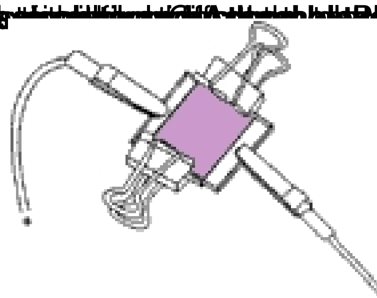
[illegible]



Step 2: Coat the Counter Electrode: The positive electrode is called the counter electrode [illegible] needs both a [illegible]

[illegible]

[illegible]



Use the two clips to hold the two electrodes together [illegible] The output is approximately 0.43 V and 1 mA/cm^2 when the cell is illuminated in full sun [illegible]

Dr. Greg Smestad (inventor of the kit) Â