**Dye Sensitized Solar Cell (DSSC) or Grätzel Cell** is a third generation thin-film photovoltaic (solar) cell that efficiently converts any visible light into electrical energy.

**How does DSSC work?**

1. **Dye excitation:** Dye molecules get excited from their ground state (S) to a higher energy state (S*) with light incident.

2. **Electron injection:** Excited-dye (S*) is oxidized (S+) and an electron is injected into the conduction band (TiO₂) to move from Anode to Cathode and generate “Current”.

3. **Oxidized-Dye regeneration:** Oxidized-dye (S+) is regenerated by electron donation from the iodide in the electrolyte.

4. **Electrochemical reduction:** In return, iodide in the electrolyte is regenerated by reduction of triiodide on the cathode.