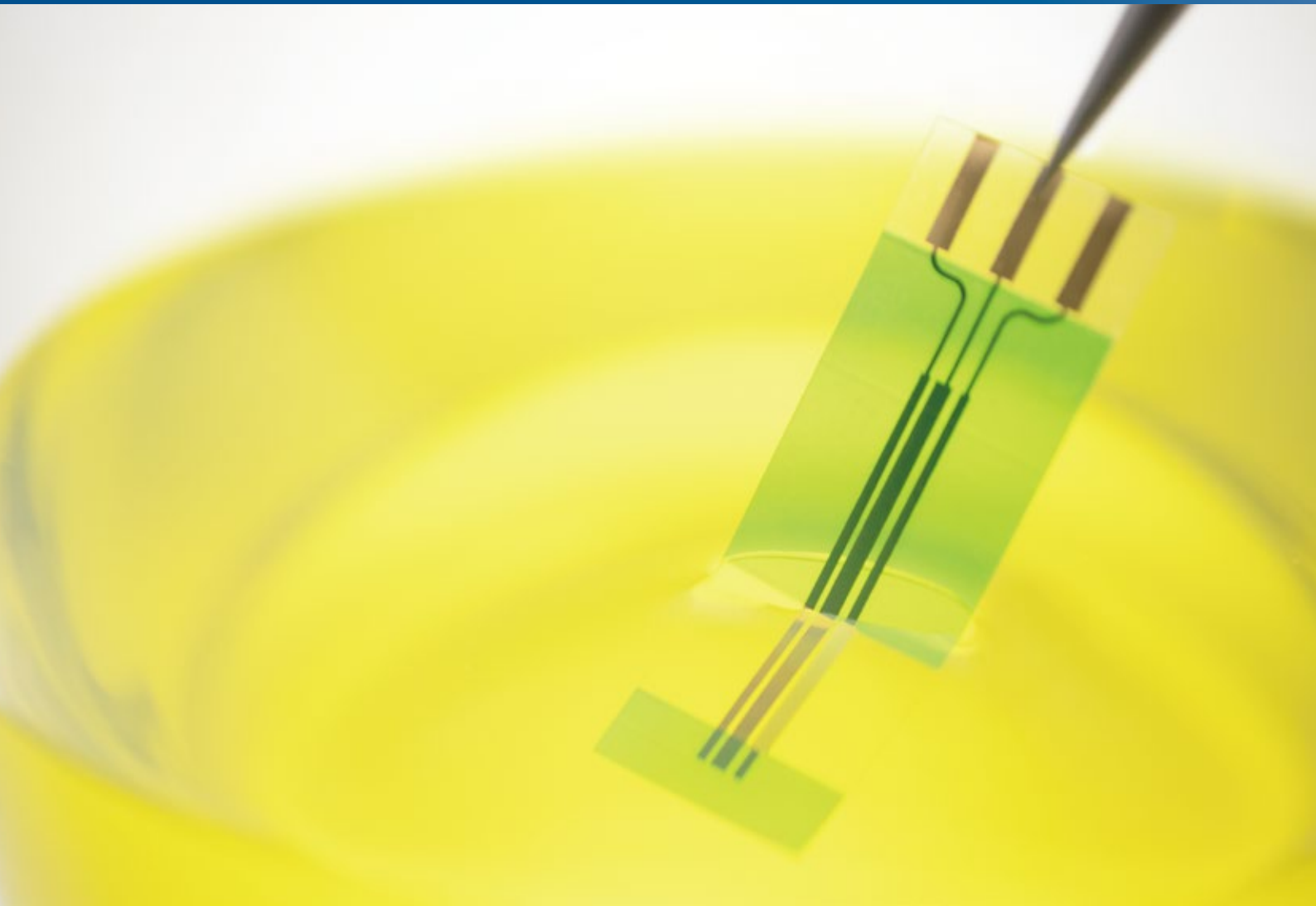




P-Flex™ **PET** Applications

Ag/AgCl electrochemical sensor

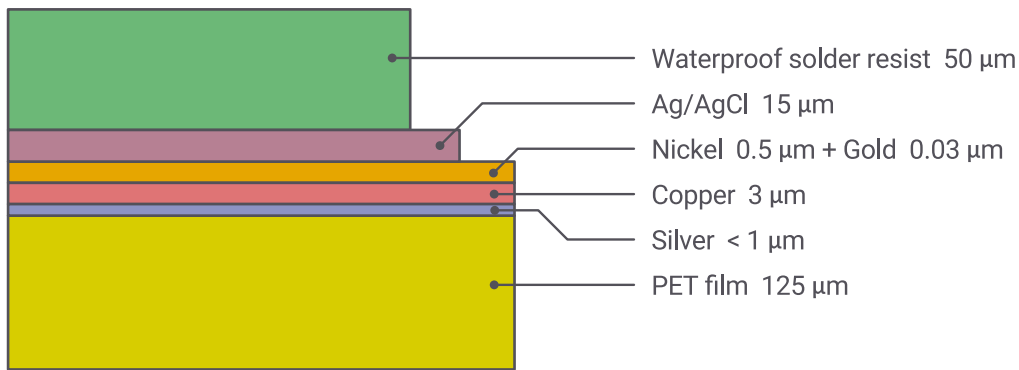


What is an electrochemical sensor

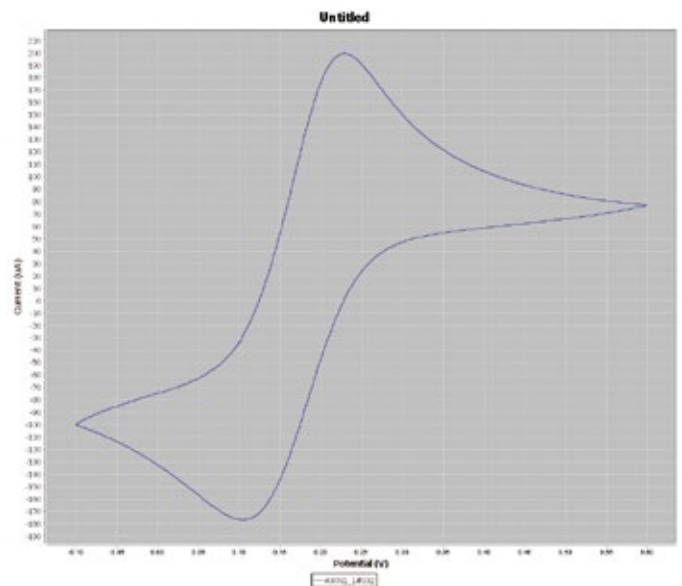
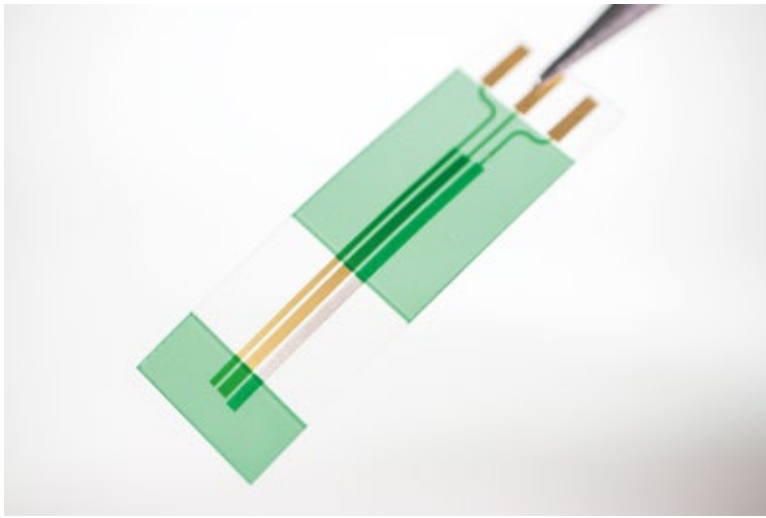
An electrochemical sensor is a sensor that can figure out the status by using redox potential. It is used for the following cases;

- ✓ for environmental and water quality analyses, measurement of the amount of copper, arsenic, and mercury and the like contained in the water.
- ✓ for measurement of the blood glucose level, lactic acid, urine sugar sensor, and glutamic acid etc as a transducer part of a biosensor etc...

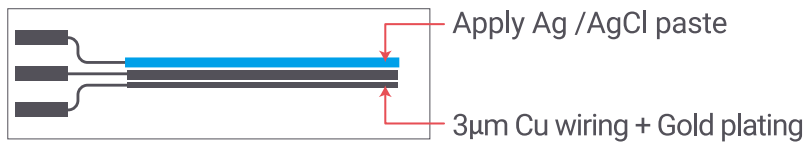
Example of Layer constitution



Benefits of making electrochemical sensors with P-Flex™ PET



The concentration of the potassium ferricyanide aqueous solution was measured with $\mu\text{Stat400}$ manufactured by DropSens



Usually, the electrochemical sensor is manufactured only by silk screen printing. However, when it is combined with the 3 μm copper wiring of P-Flex™ PET;

- ✓ Reduction of wiring resistance value.
- ✓ Cost benefit compared to gold paste printing by making gold electrode with gold flash.
- ✓ Because it is a PET base that doesn't absorb water, it can reduce water absorption induced sensor sensitivity trouble, can also be used for flow cell and such.
- ✓ Can be produced in small batches.

Company Overview



Elephantech

Elephantech Inc. (Formerly AgIC Inc.*)

*Changed corporate name on September 4, 2017

| | |
|----------------------|---|
| Establishment | January 2014 |
| Address | 4-3-8 Hatchobori, Chuo-ku, Tokyo 104-0032, Japan |
| Capital | JPY 381,050,000 |
| Representative | Shinya Shimizu, CEO |
| Business description | Development of printed electronics manufacturing technology and provision of related services |
| Website | https://www.elephantech.co.jp/en |
| Email | hello_en@elephantech.co.jp |