Organic Conductive Paste (OCP)

IPR (PATENT/ID/C) NO

INNOVATION FOR ELECTRICAL CONDUCTOR

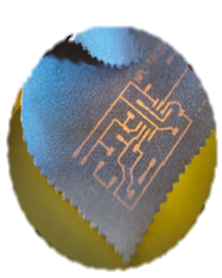
LIST OF PRODUCT

- OCP1 (10*wt%* CNT + 90*wt%* organic binder)
- OCP2 (30*wt%* CNT + 70*wt%* organic binder)
- OCP3 (50*wt%* CNT + 50*wt%* organic binder)

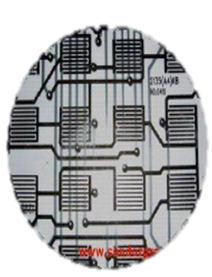
INTRODUCTION OF TECHNOLOGY

Demands nowadays wants something that can achieve zero electrical resistance and obviously unlimited. Electrical technologies can deal with zero resistance but still limited on applied application. Therefore OCP is the best product which can fulfill industrial demands. OCP is a liquid based material with used organic binder acting as vehicle mixed with carbon-based material. It is developed for electrical and electronic application and comes with various ratio. OCP can provide high or low resistance depends on industrial need. It ranges from Ω to MΩ which suitable to all devices.

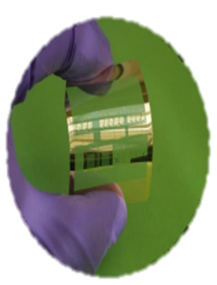
APPLICATION



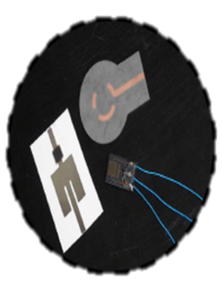
Smart textile



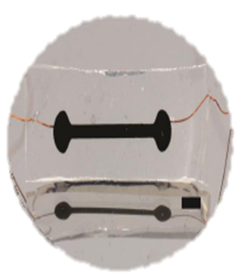
Printed circuit



Flexible device

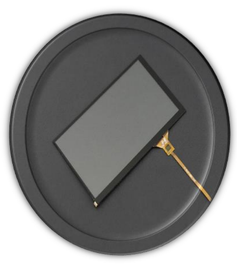


Sensor

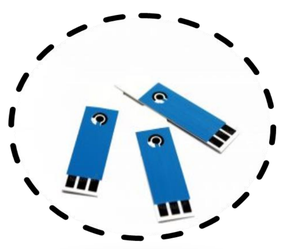


Biomedical microsystem

RFID

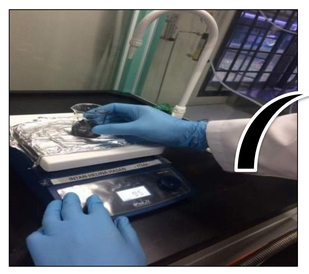


Antenna

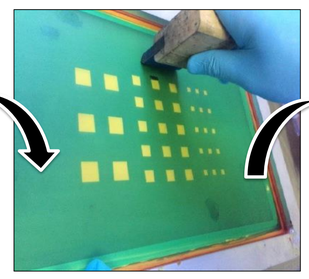


Electrode

HOW IT WORKS

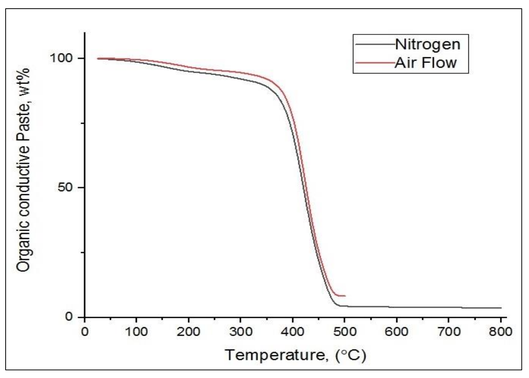


Mixing

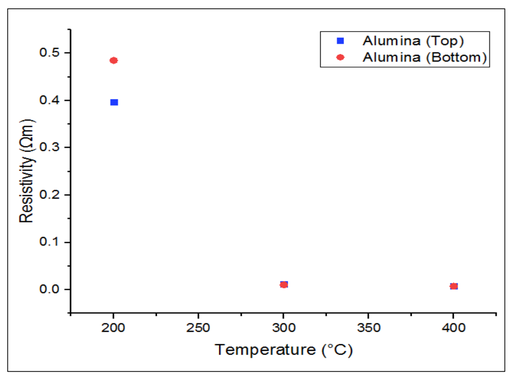


Printing

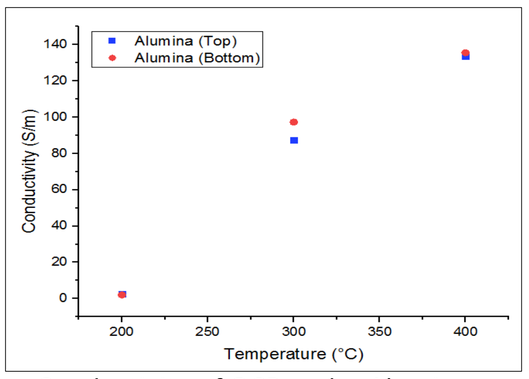
Firing



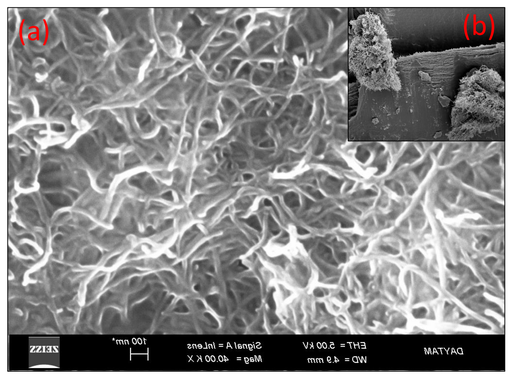
Thermogravimetric analysis of OCP under air flow and nitrogen atmosphere



Resistivity of OCP under Alumina substrate



Conductivity of OCP under Alumina substrate



Mophorlogical structure of OCP (a) on surface and (b) on cross section

ADVANTAGES

OCP is a new brand of electrical conductor comes with a lot od advantages:-

- **Eco-Friendly**
- **Can operate at low or high temperature**
- **Low cost**
- **Low resistance**
- **Easy to apply**

MARKET POTENTIAL

Consumer/End User

- Starter for kids to understanding electricity
- Wiring construction

Industry

- Electric and electronic industry

Project Leader : **Prof. Madya Dr. Mohd Nizar Hamidon**
Dept./Faculty : **Institute of Advanced Technology, Universiti Putra Malaysia**
Email : **mnh@upm.edu.my**
Phone : **03-894607533**
Expertise : **Electron devices, Sensor, Nanotechnology and wireless system**