Flexible and Printed Organic Electronics

Keywords: ***Organic Transistors, Sensors, Robots, RFID Tangs, Printing***

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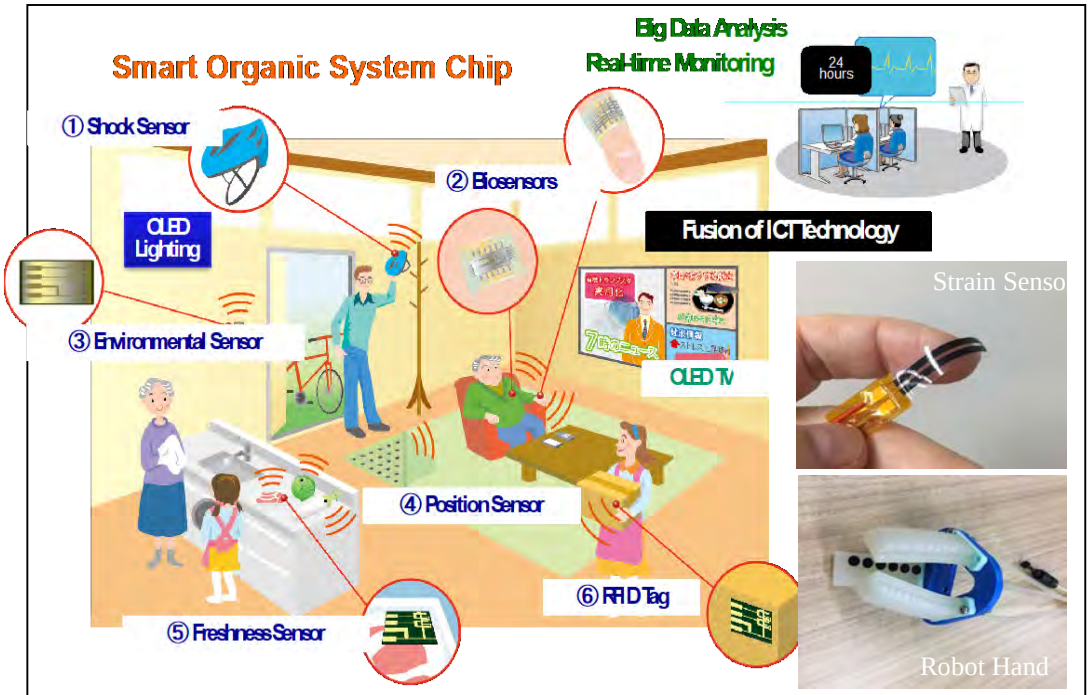
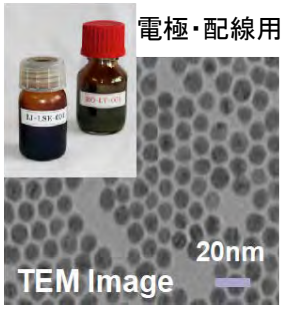
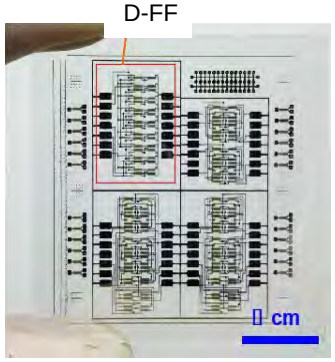
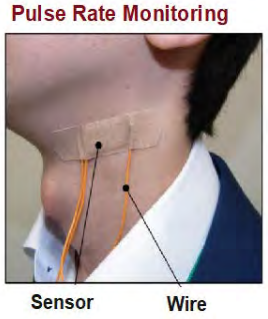




Silver NP Ink



Printed Organic Circuit



Wearable Sensor

Content:

Manufacturing process technologies using conventional printing methods are expected to be employed for next-generation electronic devices. We are furthering the research and development of printed organic transistor technology with activities that include: i) molecular design and synthesis, ii) device fabrication, iii) device operating mechanisms, and iv) electronic applications. Representative electronic applications under development are physical sensors, bio-sensors, integrated circuits, memory, RFID tags and flexible displays. These devices can be fabricated on thin plastic film substrates at low temperatures using printing technologies. We are also pursuing the development of advanced printing methods for very fine patterning on three-dimensional surfaces.

Appealing point:

Through collaboration with industries we aim to realize the safer and secure society by applying these newly developed electronics in the lives of people.

Yamagata University Graduate School of Science and Engineering

Research Field: Organic Device Engineering

Specialty: Printed Organic Electronics

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