

THE UNIVERSITY OF MANCHESTER INTELLECTUAL PROPERTY UMIP®

NOVEL METHOD FOR THE FABRICATION OF SEMICONDUCTING POLYMER DEVICES

BACKGROUND

Semiconducting polymers have emerged as a potentially disruptive technology. Semiconducting polymers offer a number of benefits over existing semiconductor materials but have not found widespread use

THE TECHNOLOGY

Academics at the University of Manchester (UoM) have invented a simple, scalable, reproducible and inexpensive method to prepare existing and novel semiconductor polymers for electronics applications.

The semiconductor polymer technology combines desirable electronic properties of semiconducting polymers, physical robustness and ease of processing. The electronic properties of the semiconductor technology can be tailored to any desired electronic application by simple modification using novel or commercially available monomers. Furthermore, the semiconductor technology can be solution-processed from water rather than a high boiling organic solvent.

KEY BENEFITS

Inexpensive/Cost effective.

Scalable and Reproducible.

Easy tailoring to specific electronic applications.

Room temperature processing from aqueous media.

The technology utilizes existing methods of fabrication (spin coating, ink jet printing and gravure printing).

APPLICATIONS

Flat panel displays, Solid-state lighting (OLED), Solar cells (OPV), Transistor backplanes (OFET).

OPPORTUNITY

We are looking to engage with commercial experts interested in development of the technology towards a product.

CONTACT

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