



TALNET: ITO (Indium Tin Oxide) Replacement

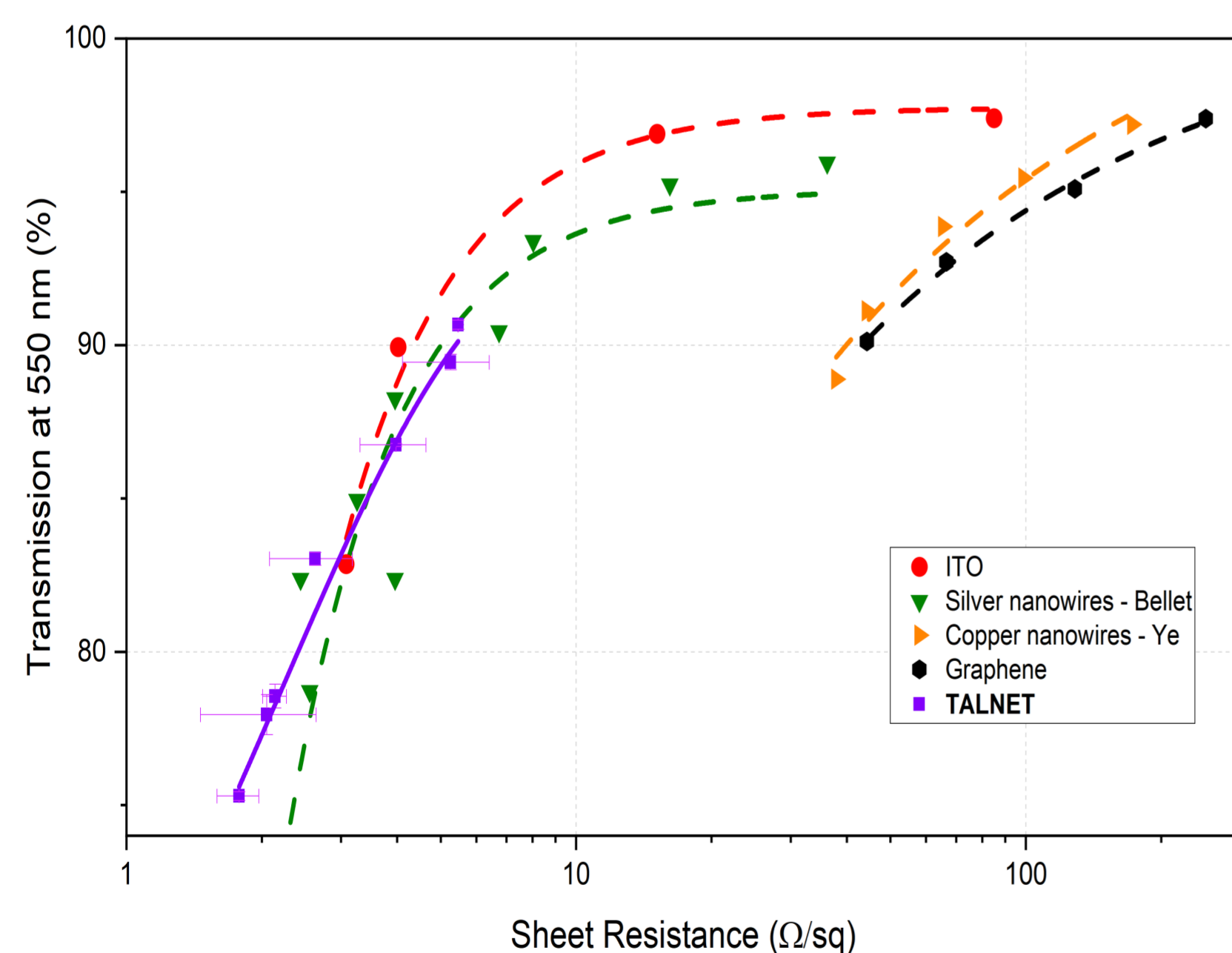
High performing transparent conductors

Overview

TALNET (**T**ransparent **AL**uminium **NET**work) is a low cost and high-performance aluminium-based coating technology for transparent conductor (TC) device applications. Utilising polymer nanofibers network (fibres or electrospun) as a template, further standard semiconductor type processing, provides a continuous network of metal (i.e. with seamless junctions) whose density and thickness can be controlled – thus controlling the optical transmission and conductivity. A replacement for current ITO layers.

Advantages

- Low cost and high performing alternative to ITO and other metal-based TC technologies.
- Facilitates TC fabrication of flexible devices on polymer substrates.
- Highest reported optical transmission and conductivity to date.
- Resistant to corrosion in ambient conditions.
- Fabrication involves standard commercially available polymer coating and etch technologies.



Applications

The high performance of TALNET devices allows for implementation into the most demanding TC applications such as solar cells, PVs, displays and touchscreens.

Uniquely, TALNET allows optical transmission and haze to be tuned to specific application requirements independently of electrical conductivity enabling precision control over the final device performance.

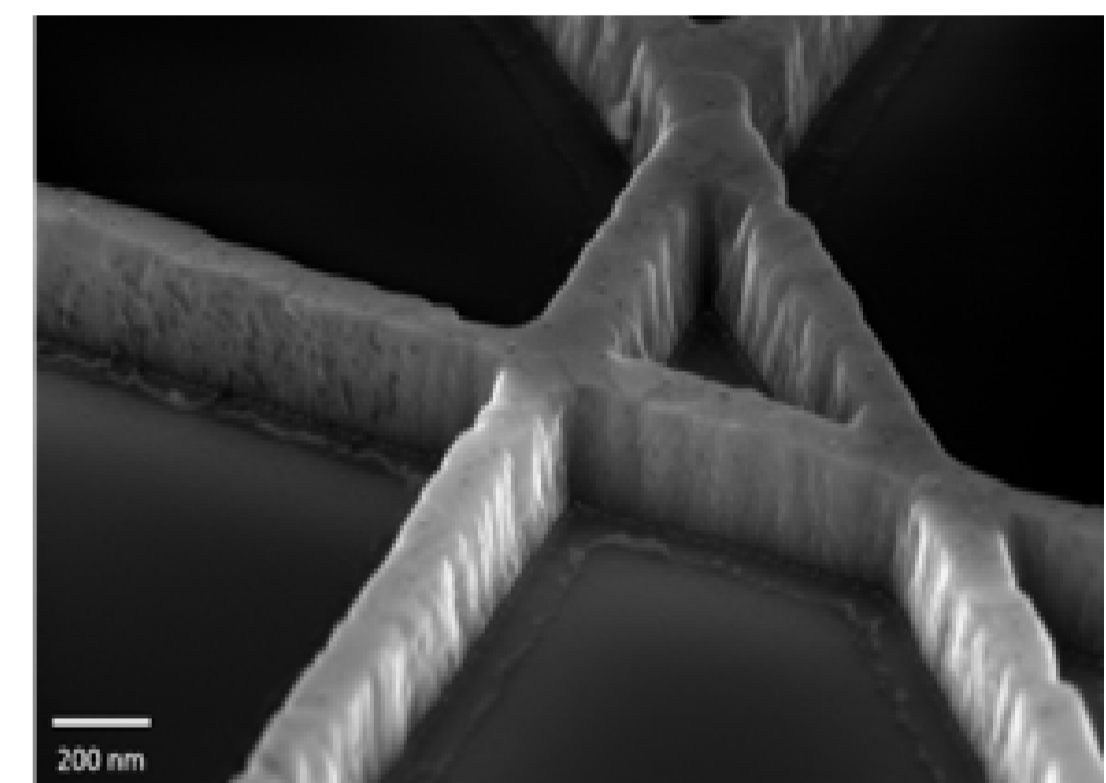
Importantly, TALNET allows for TC fabrication of flexible devices on polymer substrates.

Technology Status

Priority patent filed May 2020

Market Opportunity

High performance TCs in applications where flexible and conformal devices are essential. Examples includes solar cell deployments that are inconspicuous and architecturally sympathetic



Technology Sector

Materials, electronics

Patent Details

Priority patent filed May 2020

Opportunity

Research collaboration
Available to License

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Reference:

JB01-808-01