

ITO and Its Alternatives—Is Anything Missing for Commercial Success?

The market for transparent conductive (TC) coatings has “exploded” over the last few years, as to where it is now a \$3 billion a year business with a projection of an annual growth rate that lead to \$12 billion by 2015 by NanoMarkets. For flexible TCs indium tin oxide deposited onto polymer based substrates (ITO/Flex) has been, and still is, predicted to be the dominant player for TC coatings in applications that require a combination of good optical and electrical properties at an affordable price. However, there are some strongly expressed concerns about the future viability of ITO/Flex with several alternative TC coating approaches being actively investigated. In the same study NanoMarkets states that these alternatives to ITO will be at least \$1.1 billion in 2015.

This presentation will cover the current worldwide status for ITO/Flex. The perceived problems with ITO/Flex will be discussed along with details describing the end uses of this material and some potential new applications. The author will also cover the prospects of other TC coating candidates, along with their current pros and cons. Finally, the author’s opinion about the future directions that TC coatings might take will be given.