

Smart Inks and Plastics

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Smart inks provide a function that is in addition to the usual function of an ink; a function that is usually the provision of real-time analytical information, such as the value of the concentration of an ambient gaseous analyte of interest, such as O₂ or CO₂, or the level or dose of ambient UV light. We have developed a number of such smart inks and plastics based on photocatalysis and in this talk briefly explore a range of different smart inks, capable of detecting, for example, self-cleaning films, UV dose and oxygen concentration, and even one for cleaning up oxidised steel. We also, very briefly, look at their use in the emerging area of smart plastics.