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Development of Bicomponent Fibre to Combat Insects

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Abstract : Crop yields have not increased as dramatically as the demand for food. One method to counteract this is to use pesticides to keep away predators, e.g. several forms of insecticide are available to fight insects. These insecticides and pesticides are both controversial as their application and their residue in the food product can also harm humans. In this study an alternative method to combat insects is studied. A physical insect-killing effect of SiO₂ particles is used. The particles are applied on fibres to avoid erosion in the fields, which would occur when applied separately. The development of such SiO₂ functionalized PP fibres is shown.

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