

Nano-particles - A recent approach to insect pest control

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Abstract: Nanotechnology, a promising field of research opens up in the present decade a wide array of opportunities in the present decade and is expected to give major impulses to technical innovations in a variety of industrial sectors in the future. The potential uses and benefits of nanotechnology are enormous. These include agricultural productivity enhancement involving nanoporous zeolites for slow release and efficient dosage of water and fertilizer, nanocapsules for herbicide delivery and vector and pest management and nanosensors for pest detection. The atom by atom arrangement allows the manipulation of nanoparticles thus influencing their size, shape and orientation for reaction with the targeted tissues. It is now known that many insects possess ferromagnetic materials in the head, thorax and abdomen, which act as geomagnetic sensors. In this paper, our discussion is focused on nanoparticles in insects and their potential for use in insect pest management. © 2010 Academic Journals.

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