

السادس	رقم البحث
الدكتور/ حلمى محمد البندارى الأستاذ المساعد بقسم وقاية النبات كلية الزراعة جامعة الفيوم	اسم الباحث
مشارك مع آخرين (فردى في التخصص) غير مستخلص من رسالة	نوع البحث
تقييم وتوصيف سمية مستحلب النانو إيمداكلوبريد على الفئران	العنوان باللغة العربية
Characterization and in-vivo toxicological evaluation of imidacloprid nanoemulsion in rats.	العنوان باللغة الإنجليزية
World Journal of Biology and Biotechnology. Published Online: 18 March 2021. <a href="http://www.sciplatform.com">www.sciplatform.com</a>	مكان النشر (مجلة دولي)
٢٠٢١	سنة النشر
<p><b>Abstract:</b> Acute pesticide poisoning is an important public health problem worldwide and accounts for a significant number of deaths occurring each year. The present article aimed to investigate toxic effects of imidacloprid (IMD) nano emulsion formulated using ultrasound dispersion technique and characterized using FTIR, TEM and dynamic light scattering in adult rats. The synthesized Nano-emulsion droplets are mainly spherical and their sizes ranged between (19 nm - 128 nm) with zeta potential of <math>-38.8 \pm 0. \text{mV}</math>. Also, the median lethal dose (<math>\text{LD}_{50}</math>) of nano imidacloprid in rats was 39 mg/kg body weight. Administration of different doses of 3, 1.4, and 0.8 mg.kg mg/kg b.wt. of IMD Nano emulsion to rats for 21 days, adversely affects the body weight and weight gain, and resulted in a significant increase in serum ALT, AST activities, glucose, Creatinine, urea and cholesterol concentrations, as well as reduced serum total proteins, Albumin and globulin as compared to control rats. The results suggest that treatment with</p>	الملخص الإنجليزي

IMD nano emulsion adversely affects the liver & kidney functions which are confirmed by the histopathological findings. Nano emulsion forms and also increases the DNA damage as confirmed by the comet test.

