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摘要：用青岛曹家汶河口沉积物中分离出的细菌进行水体中甲基对硫磷的细菌降解研究，研究表明，该菌对甲基对硫磷具有显著的降解性。采用气相色谱-质谱（GC-MS）联用技术对甲基对硫磷及其细菌降解产物进行分析，利用GC-MS的G1701DAMS数据软件推断新产生化合物的结构。结果表明，在降解菌的存在下，甲基对硫磷发生取代、氧化、还原等一系列反应，产生对硝基酚等相应的降解产物。从甲基对硫磷及其降解产物的分子结构式来分析，推断可能与细菌本身的代谢有关。

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[Identification of biodegradation products of methyl parathion in aqueous environment using GC-MS...](#)

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Abstract: The biodegradation of the organophosphorus insecticide methyl parathion in aqueous suspensions by bacteria isolated from river sediment has been studied. The biodegradation process was found to be highly efficient, with the formation of several intermediates that were identified using GC-MS spectrometry. Unlike photocatalytic degradation of methyl parathion, from which the main degradation intermediates include primarily methyl paraoxon and 4-nitrophenol, the degradation products from biodegradation are more diverse because of the complexity of biodegradation processes. Data were processed using Analyst G1701DA MSD software from Agilent.

Key words:

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