

生物法降解养殖场臭气中 H_2S 的反应器启动

Start-up of a reactor for biodegradation of H_2S from livestock farms

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英文关键词: [odor of livestock](#) [packing](#) [domesticating active sludge](#) [hanging membranes](#)

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作者	单位
梁美生	太原理工大学环境科学与工程学院, 太原 030024
来永凯	太原理工大学环境科学与工程学院, 太原 030024

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中文摘要:

畜禽养殖场臭气成分复杂, 完全去除较为困难。生物法是目前应用较广泛的脱臭方法, 其中能否将生物膜附着在填料上是影响生物法去除恶臭气体效率的重要因素。本实验采用定时定量投加 Na_2S 的方式驯化活性污泥, 并选用MLSS浓度和 SO_4^{2-} 浓度增量变化2个指标作为污泥驯化成熟的指标, 比传统的以MLSS作为污泥驯化成熟的指标更准确。采用循环污泥的挂膜方式, 运行2 d后, 通入新鲜的空气和 H_2S 气体, 2周后反应器启动成功。

英文摘要:

In general the composition of the odor derived from the livestock farm is very complex, so it is difficult to remove the odor efficiently. The biological technique is widely used for the deodorization due to its high efficiency. Whether the biofilm can be attached to packing is an important factor for biological removal efficiency of H_2S . In this paper, the way of domesticating active sludge was to add quantitative Na_2S to nutrient solution in fixed time, and the value of MLSS and the SO_4^{2-} concentration as the targets for the effect of domesticating active sludge, which were easier to obtain, and more accurate than MLSS value as acclimation targets traditionally. The bio-filter was operated by sludge circulation for two days, then the fresh air and the hydrogen sulfide were introduced into the bio-filter for two weeks, the bio-membrane of reactor was enough to remove the hydrogen sulfide.

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主办单位: 中国科学院生态环境研究中心 单位地址: 北京市海淀区双清路18号 邮编: 100085

编辑部服务热线: 010-62941074 传真: 010-62941074 邮箱: cjee@rcees.ac.cn

技术支持: 北京勤云科技发展有限公司