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Hydrolysis of the model compounds of urea-formaldehyde resin

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Abstract In this study, three model compounds of urea-formaldehyde resin, such as methylene diurea, Uron and tetrahydro-5-ethyl-2(1)-s-triazone, were synthesized. The rate of hydrolysis in pH 4.0 buffer solution at 80°C was measured with iodimetric method. The result showed that the stability order of the model compounds in acid condition was Uron > methylene diurea > tetrahydro-5-ethyl-2(1)-s-triazone.

Keywords UF resin; Model compound; Rate of hydrolysis

用细菌作为真菌的生物控制剂

该项研究通过麦芽糖-琼脂或非琼脂作培养基的实验室试验,对细菌作为生物控制剂防治边材腐朽真菌的防治效率进行了评估。

通过细菌处理表现出的抑制霉菌与变色菌的作用进一步证实了可用生物控制真菌的设想。已被杀死的或未被杀死的细菌均可获得对边材腐朽真菌的控制作用,因而这种作用似乎在于合成的抗真菌成分,而不是与真菌的生存竞争或对真菌的寄生作用。抗真菌代谢物的生成有益于生物控制系统,因为这种作用被控制的生物体就会死亡,或是说抗真

菌的代谢物本身可以处理木材。在该研究中 *St. rimosus* 是最有效的细菌。已经知道 *St. rimosus* 品系能产生抗菌素,如土霉素、四环素及抗菌剂龟裂杀菌素。进一步的研究工作正在继续,目的是确定 *St. rimosus* 滤出液中抗真菌成分的存在和优化。然后开始进行较大规模的木材保护试验,该研究结果由木材防腐国际研究组发表,文献号为 IRG/WP/1493。

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