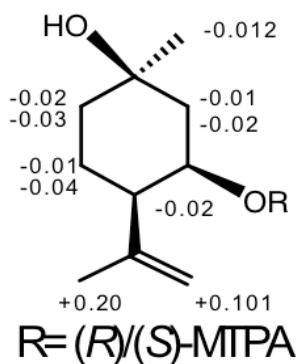
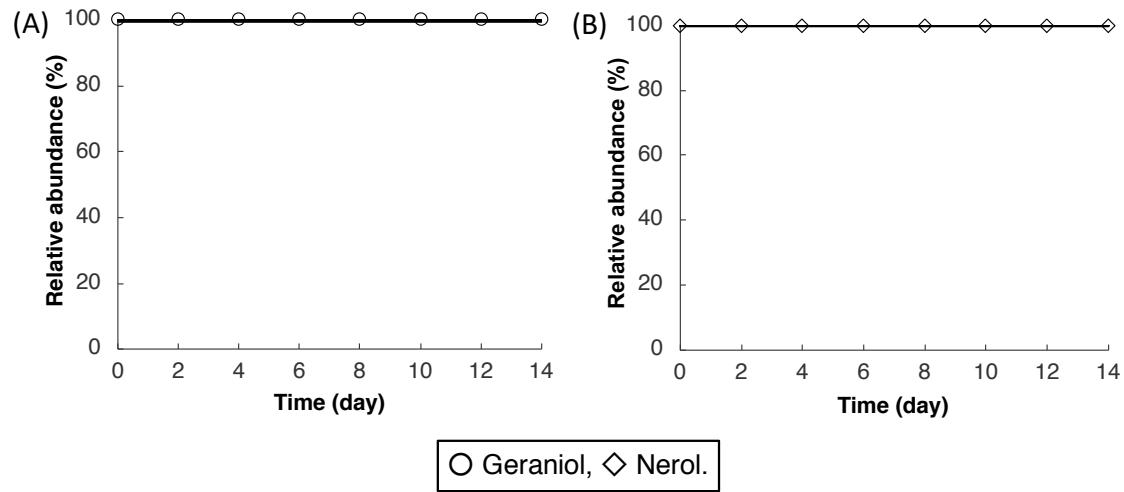


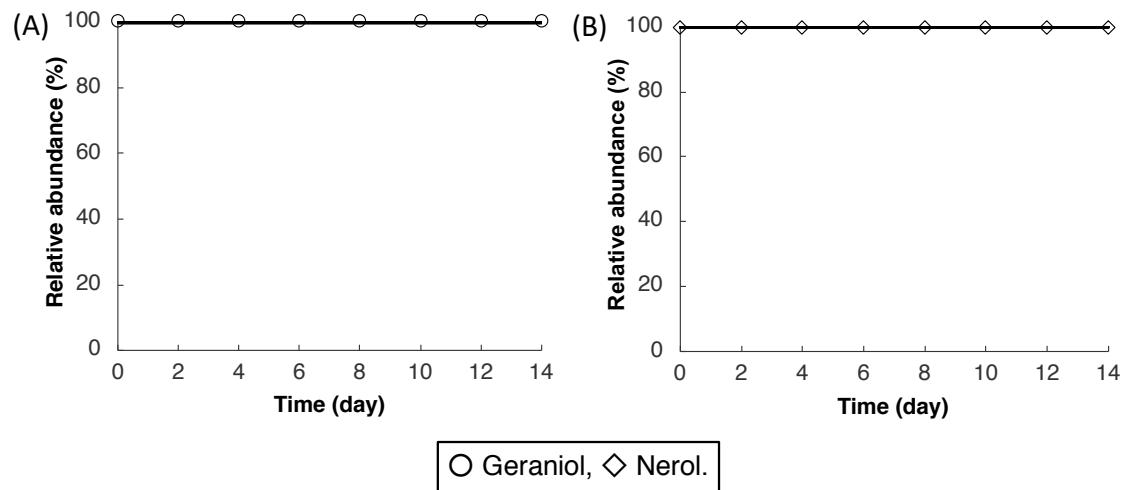
**Fig. S1.** The key COSY and HMBC correlations of 1-methyl-4-(1-methylethenyl)-1,3-cyclohexanediol



**Fig. S2.** Results of absolute configuration assignment of the prepared esters of 1-methyl-4-(1-methylethenyl)-1,3-cyclohexanediol (MMC) with (R)-(-)- and (S)-(+)-2-methoxy-2-phenyl-3,3,3-trifluoropropanoic acids (MTPA). Numbers indicate the differences of proton chemical shifts ( $\Delta\delta$ values,  $\delta_S - \delta_R$ ) between (S)-MTPA ester of MMC and (R)-MTPA ester of MMC.



**Fig. S3.** Time courses of the biotransformation of (A) geraniol and (B) nerol by *Acinetobacter* sp. Tol 5.



**Fig. S4.** Time courses of the autoxidation of (A) geraniol and (B) nerol in the absence of *Acinetobacter* sp. Tol 5.