

Electronic Supplementary Information

Actual experimental data points and the best-fit curves

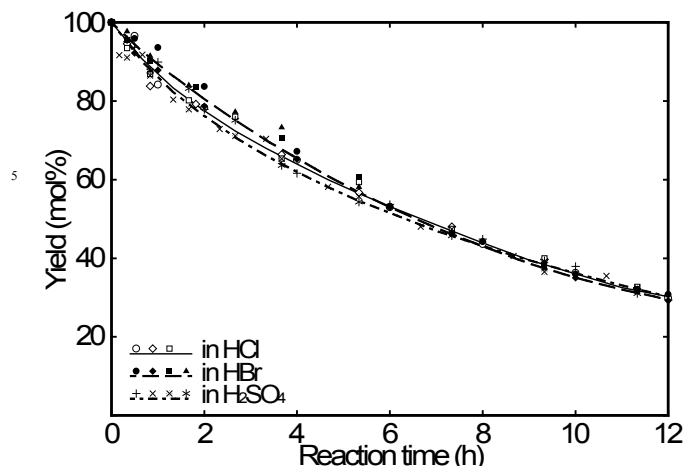


Figure S1. Display of actual experimental data points observed when pinacol was acid hydrolyzed in the H_2O solvent system, and of the best fit curves obtained from these data points of each reaction. The hydrolysis with HCl, HBr, or H_2SO_4 was repeated 3, 4, or 4 times, respectively.

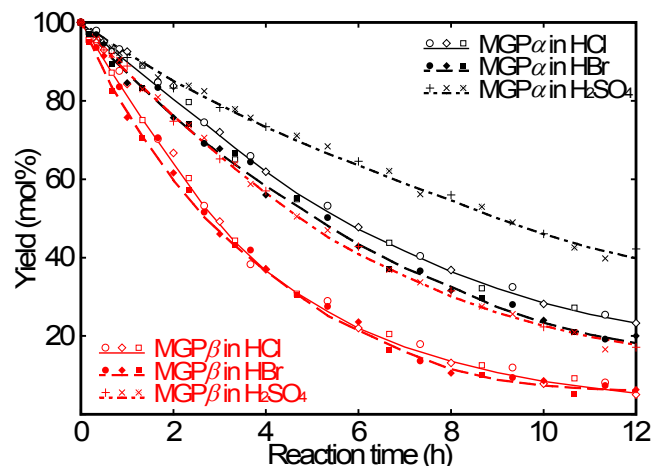


Figure S2. Display of actual experimental data points observed when a pair of MGP α and MGP β was acid hydrolyzed in the aqueous 74% 1,4-dioxane solvent system, and of the best fit curves obtained from these data points of each reaction. The hydrolysis with HCl, HBr, or H_2SO_4 was repeated 3 times in all cases.

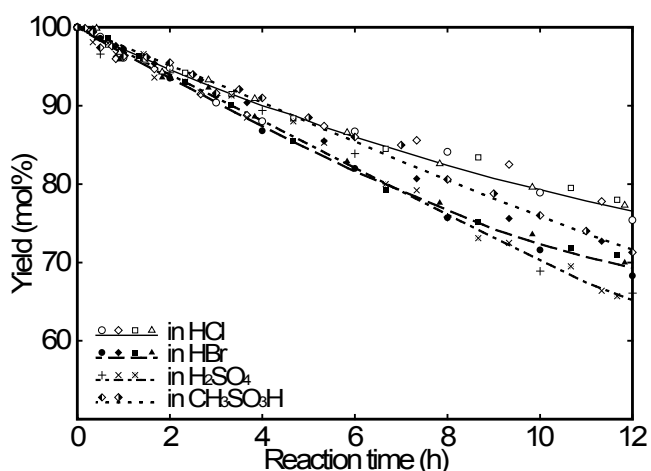


Figure S3. Display of actual experimental data points observed when pinacol was acid hydrolyzed in the aqueous 74% 1,4-dioxane solvent system, and of the best fit curves obtained from these data points of each reaction. The hydrolysis with HCl, HBr, H_2SO_4 , or $\text{CH}_3\text{SO}_3\text{H}$ was repeated 4, 4, 3, or 2 times, respectively.

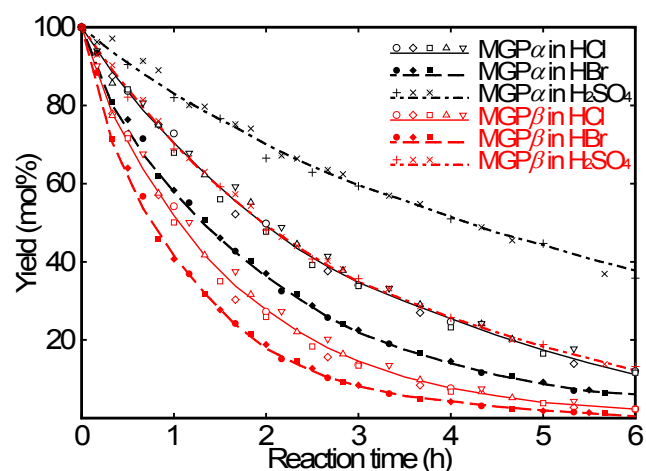


Figure S4. Display of actual experimental data points observed when a pair of MGP α and MGP β was acid hydrolyzed in the aqueous 82% 1,4-dioxane solvent system, and of the best fit curves obtained from these data points of each reaction. The hydrolysis with HCl, HBr, or H_2SO_4 was repeated 5, 3, or 3 times, respectively.

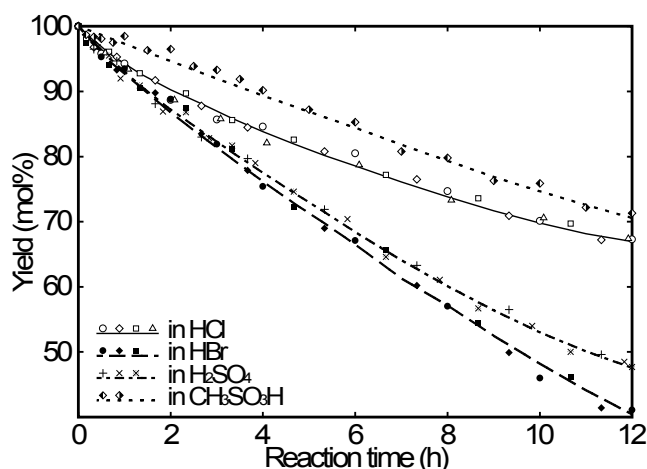


Figure S5. Display of actual experimental data points observed when pinacol was acid hydrolyzed in the aqueous 82% 1,4-dioxane solvent system, and of the best fit curves obtained from these data points of each reaction. The hydrolysis with HCl, HBr, H₂SO₄, or CH₃SO₃H was repeated 4, 3, 3, or 2 times, respectively.

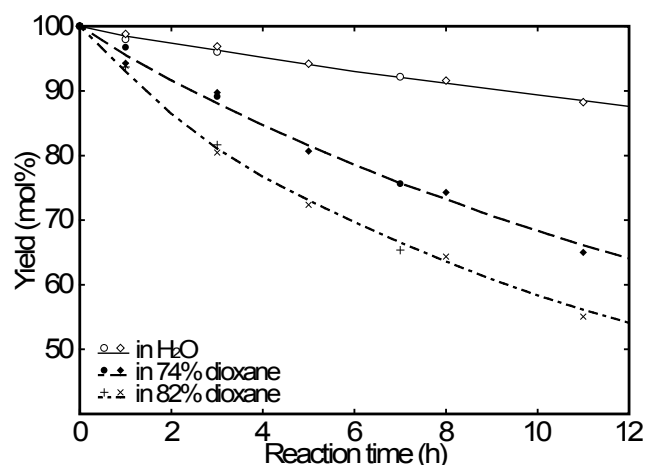


Figure S6. Display of actual experimental data points observed when BnAni was acid hydrolyzed in three solvent systems, and of the best fit curves obtained from these data points of each reaction. The hydrolyses were using CH₃SO₃H and repeated twice in all cases.

Logarithmic plots for the disappearances of MGP, pinacol, and Bnani

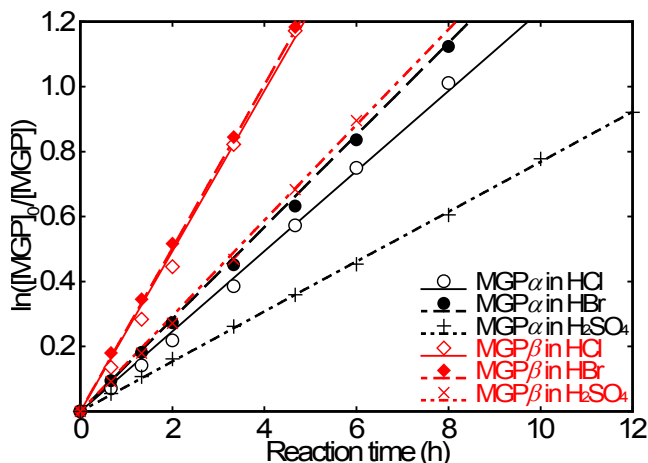


Figure S7. Logarithmic plots for the disappearances of MGP in the 74% 1,4-dioxane solvent system. [MGP]: concentration of MGP α or MGP β , [MGP]₀: initial concentration of MGP α or MGP β .

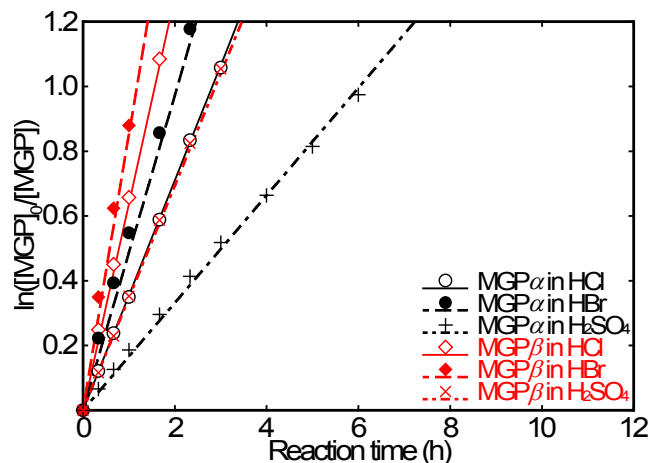


Figure S8. Logarithmic plots for the disappearances of MGP in the 82% 1,4-dioxane solvent system. [MGP]: concentration of MGP α or MGP β , [MGP]₀: initial concentration of MGP α or MGP β .

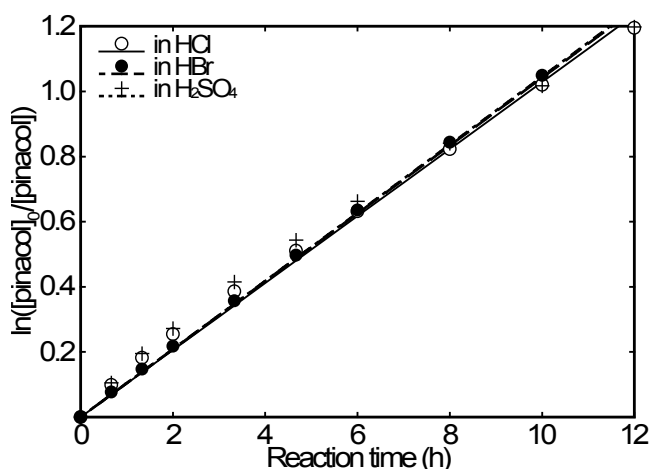


Figure S9. Logarithmic plots for the disappearances of pinacol in the H_2O solvent system. $[\text{pinacol}]$: concentration of pinacol, $[\text{pinacol}]_0$: initial concentration of pinacol.

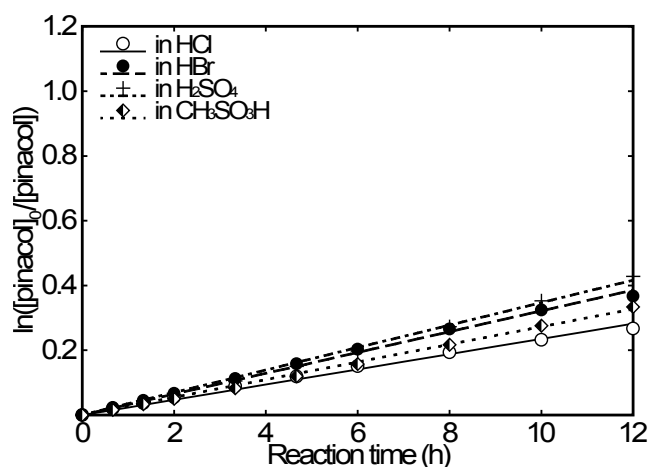


Figure S10. Logarithmic plots for the disappearances of pinacol in the aqueous 74% 1,4-dioxane solvent system. $[\text{pinacol}]$: concentration of pinacol, $[\text{pinacol}]_0$: initial concentration of pinacol.

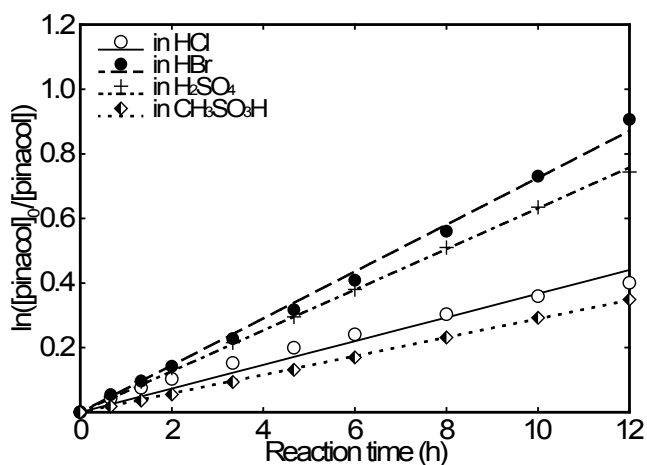


Figure S11. Logarithmic plots for the disappearances of pinacol in the aqueous 82% 1,4-dioxane solvent systems. $[\text{pinacol}]$: concentration of pinacol, $[\text{pinacol}]_0$: initial concentration of pinacol.

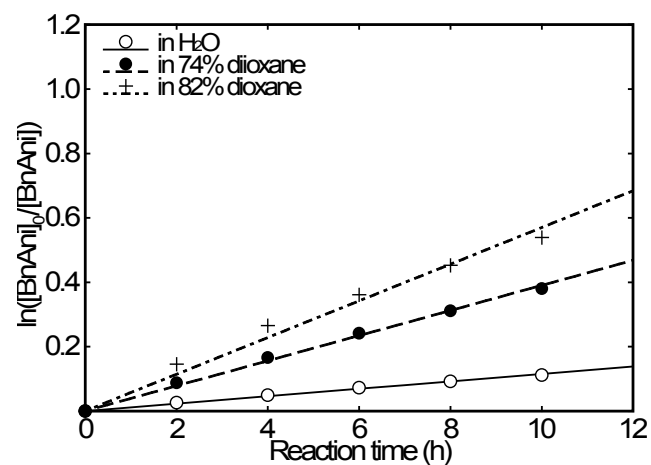


Figure S12. Logarithmic plots for the disappearances of BnAni in three solvent systems. $[\text{BnAni}]$: concentration of BnAni, $[\text{BnAni}]_0$: initial concentration of BnAni.