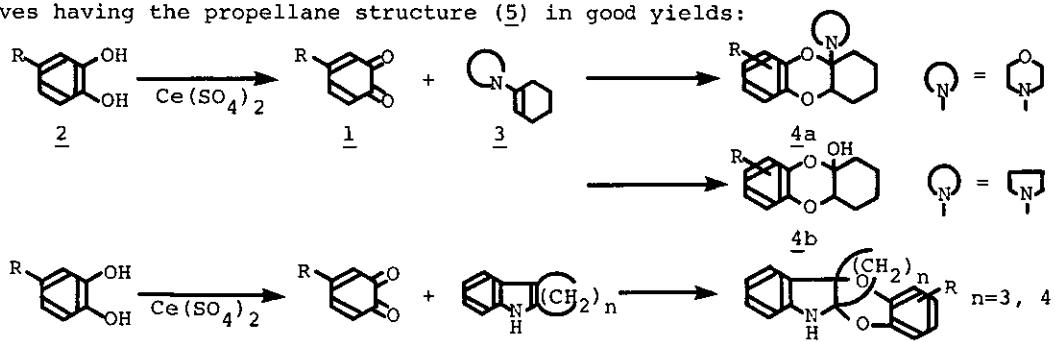


THE SYNTHESIS AND DECOMPOSITION REACTION OF 1,4-BENZODIOXINS RELATED TO α -BENZOQUINONES

Choji Kashima, Atsushi Tomotake, and Yoshimori Omote
 Department of Chemistry, University of Tsukuba,
 Sakura-mura, Niihari-gun, Ibaraki 305 Japan

α -Benzoquinoid compounds are highly reactive and unstable compounds. Hence, some difficulties to isolate or to trap of some α -benzoquinones are still remained. During the course of the investigation of the trapping reaction of α -benzoquinones, we have found that enamines (3) reacted with α -benzoquinones (1) to afford the [4+2]-type cycloadducts, 1,4-benzodioxan derivatives (4). Also, we have found that indoles having the ring-substituent between the C-2 and C-3 position, reacted with α -benzoquinones to afford the 1,4-benzodioxan derivatives having the propellane structure (5) in good yields:



On the other hand, via the photodecomposition reaction of α -benzoquinones. Hence, we have investigated the photodecomposition reaction of ozonide derived from the reaction of 1,4-benzodioxin (6) with ozone, and found that α -benzoquinones (1) were afforded in moderate yields:

