

289af Microwave-Assisted Synthesis of Racemic α -Hydroxy Acids

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Sodium trichloroacetic (NTCA) can be converted to α -hydroxy acids in a good overall yield by microwave-assisted phase transfer catalysis. All processes involving the catalyzed reaction of NTCA with aldehydes in the presence of tetrabutylammonium bromide (TBBA) followed by hydrolysis are completed in a reactor placed in a 650W microwave oven. RCH(OH)CCl_3 (R:PhCH₂CH₂, PhCH:CH, PhCH₃CH₂CH₂CH₂, etc.) are prepared from RCHO, NTCA and TBBA in water and chloroform, then are hydrolyzed with sodium hydroxide directly added to previous vessel to form RCH(OH)COOH.

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