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An Efficient and Practical Synthesis of Ropivacaine Hydrochloride under Ultrasound Irradiation

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SUMMARY. Ropivacaine hydrochloride was synthesized from L-2-pipecolic acid by successive reaction with SOCl2 and 2,6-dimethylaniline at 40 °C under ultrasonic irradiation to yield L-N-(2,6-dimethylphenyl)-piperidin-2-carboxamide (**4**), and **4** was reacted with 1-bromopropane at 50 °C for 1 h under ultrasonic irradiation. The effects of reaction solvent, temperature and time under ultrasonic irradiation were investigated. Compared with conventional methods, present procedures have the advantages in milder conditions, shorter reaction time and higher yields. The total yield was 67.5%, [α]25 D= - 6.6°(c = 2, H_2O).

KEY WORDS: Local anaesthetic, L-2-pipecolic acid, Ropivacaine, Sonochemistry.

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