

Abstract

Long-chain dimethylaniline derivative compounds, their preparation methods, self-assembled textures, and uses thereof

The present invention relates to long-chain dimethylaniline derivative compounds, their preparation methods, self-assembled texture, and uses thereof. Said compounds show ultralong acting anaesthetic effect, and belong to N-diethylaminoacetyl-2,6-dimethylaniline compounds, having a structure according to formula (I). Said compounds may self-assemble into micelle or gel in an aqueous solvent, and exert an *in vivo* elongated local anesthetic actions. Local anesthesia and/or analgesic activity can last more than 72 hours. The biomaterials can self-assemble into micelles or gels in water and have local anesthetic effect, as well as can further be used as the coating of medicinal bioactive molecules for treatment of pain, itching and the like and/or the drug carriers, together with as pharmaceutical adjuvants for delivery system. Thus, said materials have a favourable perspective.

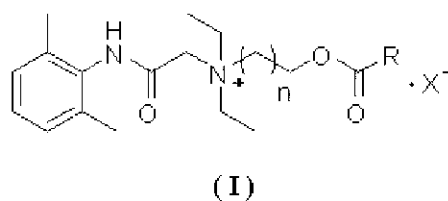


Fig. 7