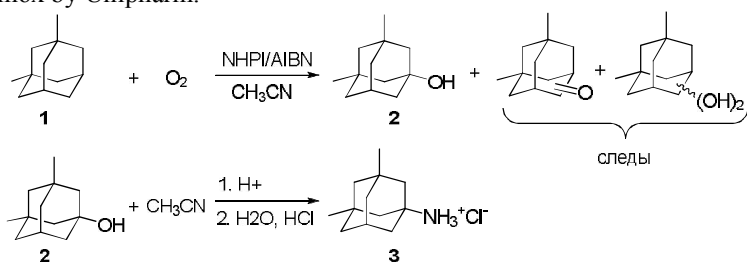


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«Green» synthesis of the neuroprotective drug “Memantine”[®]

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Memantine is the first in a novel class of Alzheimer's disease medications acting on the glutamatergic system by blocking NMDA glutamate receptors. Memantine is marketed under the brands Axura and Akatinol by Merz, Namenda by Forest, Ebixa and Abixa by Lundbeck and Memox by Unipharm.



The new effective method of synthesis of Memantine based on highly selective oxidation of 1,3-dimethyladamantane with metal- and acid-free catalytic system NHPI/O₂/AIBN was developed. The reactivities of adamantane, 1,3-dimethyladamantane, diamantane, triamantane and cyclohexane with oxygen in presence of catalytic amounts of N-hydroxyphthalimide in different media.