

Modified analysis 4-(7-cyclohepta-1,3,5-trienyl)aniline

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Abstract

Previously obtained that the interaction between aniline and tropylium tetrafluoroborate resulted in the production of 8-aryl-8-azaheptafulvene. When tetrafluoroborate was substituted for tropylium perchlorate the 4-(7-cyclohepta-1,3,5-trienyl)aniline was obtained. The 4-(7-cyclohepta-1,3,5-trienyl)aniline compound possess an antimicrobial activity against *Staphylococcus aureus*, *Staphylococcus epidermis*, *Staphylococcus saprophyticus*, *Escherichia coli*, and yeast-like fungi *Candida albicans*. An implementing method allowed to use inexplorative tropylium tetrafluoroborate and methanol or ethanol instead of tetrahydrofuran as solvent.

References

- [1] K. Sanechika, S. Kajigaeshi, S. Kanemasa. *Synthesis*. **1977**. No.3. P.202-204.
- [2] K. Takahashi, S. Takenaka, T. Nozoe. *Tetrahedron*. **1974**. Vol.30. P.2191-2195.
- [3] L.P. Yunnikova, and T.A. Akent'eva. RF Patent 2479571/S1. *Byull. Izobret.* **2013**. No.11.
- [4] L.P. Yunnikova, T.A. Akentieva, T.V. Makhova, and G.A. Aleksandrova. 4-(7- Cyclohepta-1,3,5-triene) aniline and derivatives with antimycobacterial activity. *Butlerov Communications*. **2012**. Vol.32. No.10. P.22-26. ROI: jbc-02/12-32-10-22.
- [5] L.P. Yunnikova, T.A. Akent'eva, G.A. Aleksandrova, L.A. Mikhailova, and C.L. Eliseev. Synthesis and antimicrobial activity of anilines with 1,3,5-cycloheptatriene and 5H-dibenzo[a,d]annulene fragments. *Pharm. Chem. J.* **2014**. Vol.48. No.1. P.22-25. 10.1007/s11094-014-1038-2 (russian)