**Synthesis of fluorinated neonicotinoids**

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**Andrii Kyrylchuk**, Andriy Bezdudnyy, Denys Klukovskyi

1Institute of Organic Chemistry, National Academy of Sciences of Ukraine, Murmans'ka str. 5, Kyiv, 02660, Ukraine

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**ABSTRACT**

This is a general protocol for synthesis of fluorinated neonicotinoid analogues by interaction of amines with 2-chloro-5-(chloromethyl)pyridine.

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**KEYWORDS**

neonicotinoids; vector control; fluorinated compounds; Malaria; larvicide; molecular modeling; molecular docking

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2-chloro-5-(chloromethyl)pyridine

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Catalog #516910

Substituted aniline, obtained according to literature sources.

1. Dissolve 2.0 mmol of corresponding substituted aniline in 5 mL of anhydrous acetonitrile in round-bottom flask, add 0.324 g (1.9 mmol) of 2-chloro-5-(chloromethyl)pyridine and 0.828 g (6.0 mmol) of anhydrous potassium carbonate.

2. Put a water-cooled backflow condenser on top of the flask and heat the flask under vigorous stirring until the solution starts to boil.
3  Continue refluxing for several hours. Monitor reaction progress via thin layer chromatography (TLC).

4  After the reaction is complete, filter off inorganic salts and rigorously wash the sediment with dichloromethane.

5  Combine all liquid fraction and remove the solvents by evaporation under reduced pressure.

6  Purify the residue by preparative (TLC) on SiO₂ (eluent EtOAc/hexane 1:2).