3rd EuroAsian Heterocyclic Meeting "Heterocycles in Organic and Combinatorial Chemistry" (EAHM-2004)
September 12-17, 2004, Novosibirsk, Russia
Poster Presentation

# Synthesis of Dimethylthiophosphano Derivatives of Dibenzo-*para*-dioxin, Phenoxazine and Phenoxatiin*

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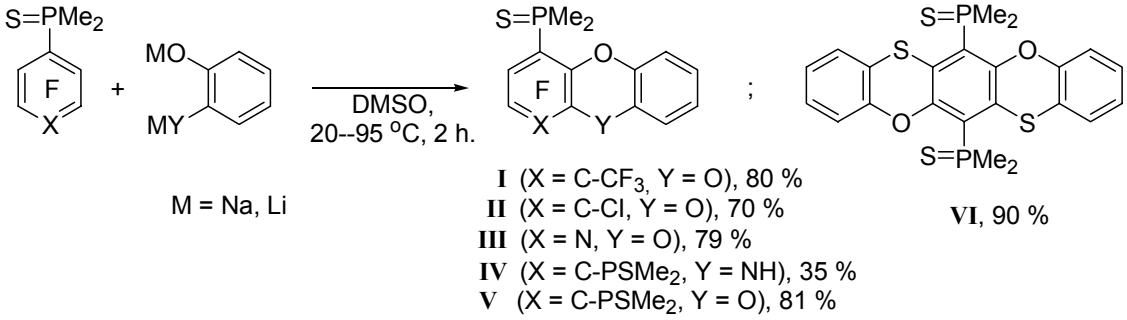
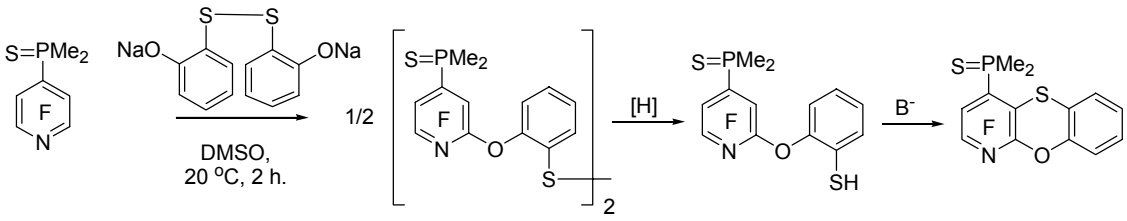
The synthesis of potentially biologically active fluorinated heterocycles contaning dimethylthiophosphano functions, such as dibenzo-*para*-dioxin, phenoxazine and phenoxatiin derivatives (**I-V)**, was recently [1] demonstrated according to Scheme:




**I** (X = C-$CF_3$, Y = O), 80 %
**II** (X = C-Cl, Y = O), 70 %
**III** (X = N, Y = O), 79 %
**IV** (X = C-$PSMe_2$, Y = NH), 35 %
**V** (X = C-$PSMe_2$, Y = O), 81 %

**VI**, 90 %

The reaction of equimolar amounts of 1,4-$(PSMe_2)_2C_6F_4$ and a disodium salt of 2-mercaptophenol led right up to dithiapentacene (**VI)**. The possibility of preparation of tricyclic phenoxatiin derivatives using compounds with a -S-S- "self-protecting" group is demonstrated according to Scheme:




**VII**. 65 %
**VIII**. 35 %
**IX**. 85 %

[1] *Goryunov L.I., Shteingarts V.D. ,Grobe J.* // Russian J. Org. Chem., **2004**, in press.

* We thank the Deutsche Forschungsgemeinschaft (DFG) for financial support.