

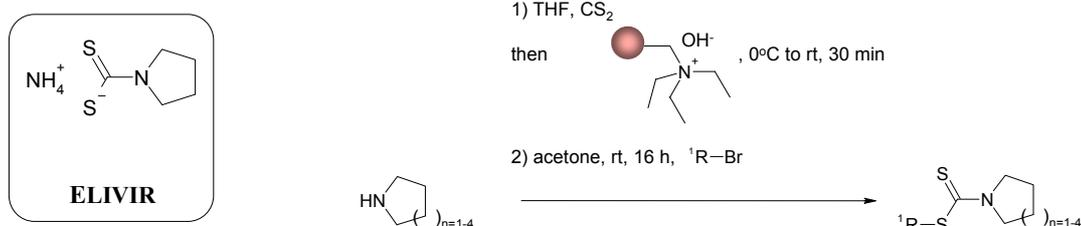
## SOLID PHASE SUPPORTED SYNTHESIS OF ALKYL DITHIOCARBAMATES

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Pyrrolidine dithiocarbamate (ELIVIR) is reported to show antiviral activity against several kinds of viruses (human rhinovirus, enterovirus, influenza virus) causing respiratory infections in humans [1, 2]. Thereby, the efficacy against more than only one type of virus hints for a more general mechanism of action affecting directly host cell processes. Agents of this type might represent a powerful tool in the fight against viral pandemics and the latent threat by animal viruses being on the mend to become adapted to humans (e.g. avian influenza).



However, in terms of better physiological availability and a possible oral application as well as due to potential toxicology issues, the quest for alternative compounds featuring the same or even an improved activity than ELIVIR is of interest. The alkylation of the free dithiocarbamate carbamate moiety is considered to be a first, promising approach along this line [3]. Herein, we report a robust procedure which allows alkylation of dithiocarbamates with a wide range of alkyl bromides in a parallel manner. Thereby, the dithiocarbamate is directly formed on the polymer support which is later used as a polymer reagent in the alkylation. The anticipated alkyl dithiocarbamates result in very good to excellent purities and yields and were submitted without further purification for biological screening.

[1] Gaudernak, E.; Grassauer, A.; Kuchler, E.; Muster, T.; Seipelt, J.; *Dithiocarbamate antiviral compounds for production of an agent for the treatment or prevention of a viral infection in the respiratory tract, and for a disinfecting agent*, PCT Int. Appl., **2003**.

[2] Gaudernak, E.; Seipelt, J.; Triendl, A.; Grassauer, A.; Kuchler, E.; *Journal of Virology*, 76, 12, 6004-6015, **2002**.

[3] Osei, S.; Bakare, O.; *Solution Phase parallel Synthesis of a Twelve-Member Library of Dithiocarbamate Ester Analogs of Pyrrolidine*, Poster Presentation, Department of Chemistry, Howard University, Washington, USA.