## Azolides and Related Derivatives of Perfluoro-5,5-dimethyl-4-ethylidene-2-thiazolin-2-yl as Combinatorial Chemistry Tools

## Andrey V. Rogoza

Novosibirsk Institute of Organic Chemistry, Pr. Lavrentjeva 9, 630090 Novosibirsk , Russia, Fax: +7(3832)-34-47-52

Methods of high throughput screening (HTS) allow thousands of samples per day to be tested on biological activity. To solve problem of producing samples in such a large quantities we can use combinatorial chemistry (CC). Primary aims of CC are high productivity and required purity (usually >85%) or harmless by-products and solvents, while isolation and investigation of physical properties of new compounds are secondary. Author proposes the following reagent series developed for this purpose:

$$CF_3$$
 $CF_3$ 
 $CF_3$ 

$$R = \begin{bmatrix} N \\ N \\ N \end{bmatrix}, \begin{bmatrix} N \\ N \\ N \end{bmatrix},$$

Nu = amino groups (amines, aminoacids etc.), alcoholes, thiols

(self biol. active)

The reagents are related to **Staab reagents**, but the role of acyl group is assigned to heterocycle bearing fluorinated group. Particular conditions of syntheses illustrated above are reported. Both reagents (especially azoles, azines and some other fragmentes) and reaction products as potential biologically active compounds are of great interest, and high yields, low-toxic and easily removed solvents and by-products allow the use of these reagents in robotic systems for combinatorial chemistry.

Note. For scientific exchange purposes the reagents are readily available through author.