

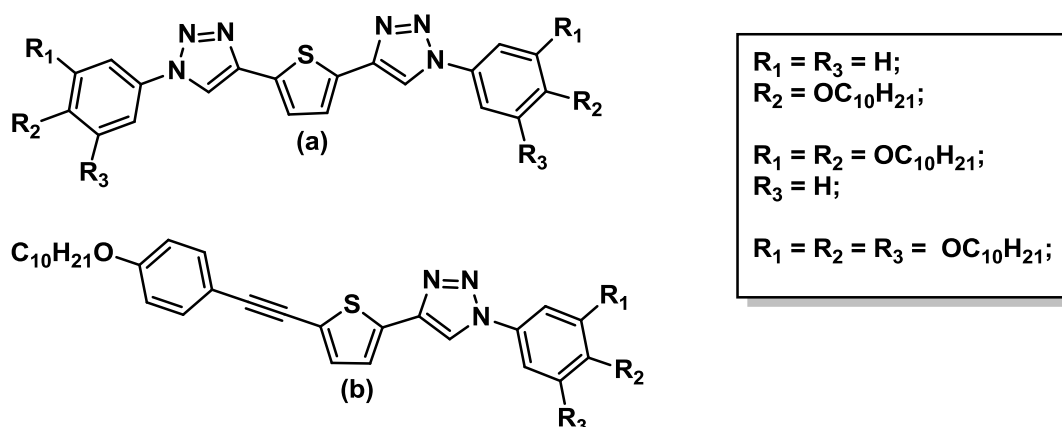
# Liquid Crystals Derived From Thiophene Connected to the 1,2,3-Triazole Heterocycle

Edivandro Girotto<sup>1</sup>, Hugo Gallardo<sup>1,\*</sup>, and Ivan H. Bechtold<sup>2</sup>

<sup>1</sup> Departamento de Química e <sup>2</sup> Departamento de Física, Universidade Federal de Santa Catarina, 88040-900 Florianópolis, SC, Brazil.

*e-mail:* girottoedi@hotmail.com

Six new compound derivatives from thiophene were synthesized. The three symmetrical compounds were synthesized containing two heterocyclic 1,2,3-triazole on each side of thiophene, 2,5-disubstituted and the three non-symmetrical compounds were synthesized containing alkyne groups as a spacer in replacing one of these heterocycles. The structural modifications were made by changing the number of alkoxy groups in order to understand the relation between structure and mesomorphic behavior. Some of the compounds presented liquid crystalline properties, smectic and nematic mesophases. The non-symmetrical compounds showed a low emission in the blue region. The target compounds (Figure 1).



**Figure 1.** Thiophene derivatives: symmetrical compounds (a), non-symmetrical compounds (b).