benzothiophene derivatives

R 0100 05 - 116 Efficient One-Pot Synthesis of Dithieno(dibenzothieno)-Fused Cycloheptanones, Tropones, and Cyclooctanones. — The in situ formed complexes from acrylamides (I) and triflic anhydride undergo a tandem alkylation/Vilsmeier—Haack acylation with bisthiophenes (II), (V), and (VIIIb) and dithienylmethanes (X) and (XII) to form the title compounds. The formation of fused cyclooctanone (XIII) is accompanied by the unexpected naphthothiophene (XIV). — (NENAJDENKO, V. G.; BARAZNENOK, I. L.; BALENKOVA, E. S.; J. Org. Chem. 63 (1998) 18, 6132-6136; Dep. Chem., Lomonosov Moscow State Univ., Moscow 119899, Russia; EN)

$$I_{0} = \frac{1. \bigcirc S \bigcirc S \bigcirc (XII), A)}{2. B)} + \bigcup_{0} \bigcirc S \bigcirc S \bigcirc S \bigcirc A$$

$$A): Tf_{2}O, CH_{2}CI-CH_{2}CI, O \rightarrow reflux$$

$$B): aq. Na_{2}CO_{3} \qquad XIII 17\% \qquad XIV 19\%$$