

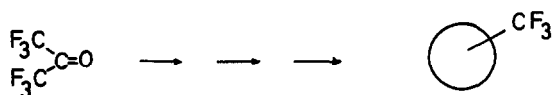
O<sub>17</sub>

## SELECTIVE INTRODUCTION OF TRIFLUOROMETHYL GROUPS INTO HETEROCYCLIC SYSTEMS

Klaus Burger\*, Klaus Geith and Thomas Kahl

Organisch-Chemisches Institut der Technischen Universität München, Lichtenbergstrasse 4, D-8046 Garching bei München (F.R.G.)

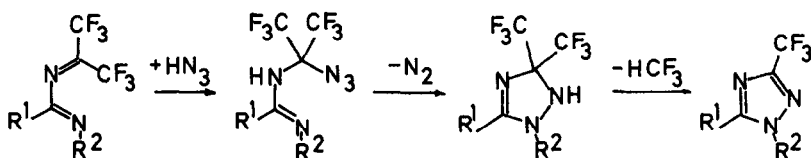
Two new strategies for introduction of single trifluoromethyl groups into heterocyclic systems — starting from hexafluoroacetone — are presented.



Strategy I: A two-step procedure consisting of

- 1) ring synthesis with bis(trifluoromethyl) substituted hetero-1,3-dienes
- 2)  $\text{HCF}_3$  elimination

offers versatile access to trifluoromethyl substituted ring systems.



Strategy II: A reaction sequence consisting of

- 1) reductive fluorine elimination
- 2) electrocyclic ring closure
- 3) elimination with aromatization

offers a new route to trifluoromethyl substituted 1,3-azoles. Scope and limitation of the two new procedures will be discussed.

