

ROM-polymerization of monomer 1:

To a stirred solution of monomer **1** (3.0 g, 18 mmol) in CH₂Cl₂ (500 mL) and norbornadiene (0.20 mL, 3.6 mmol) was added bis(tricyclohexylphosphine)benzylideneruthenium(IV) dichloride (222 mg, 0.27 mmol). The reaction mixture was stirred at ambient temperature for 2 h, when ethyl vinyl ether (3 mL) was added and the reaction mixture stirred for a further 1 h. The insoluble material was filtered off and washed with CH₂Cl₂ (10 mL), AcOEt (10 mL), Et₂O (10 mL) and CH₂Cl₂ (10 mL). A total of 2.55 g (85%) of ROMPGEL **2** was isolated after the insoluble material was dried under reduced pressure at ambient temperature.

General Procedure for the formation of amides, sulfonamides and carbamates using ROMPGEL scavenger 2:

The amine (0.60 mmol) was added to the acid chloride, sulfonyl chloride or chloroformate respectively (0.20 mmol) in CH₂Cl₂ (5 mL) and poly(vinylpyridine) (80 mg) at room temperature. The reaction mixture was stirred for 2 h, the ROMPGEL scavenger **2** (111 mg, 1.20 mmol) was added and stirring continued for 3 h. The reaction mixture was filtered through a frit and the retained solid washed with CH₂Cl₂ (5 mL). Evaporation of the solvent under a stream of nitrogen gave the product amide, sulfonamide or carbamate.

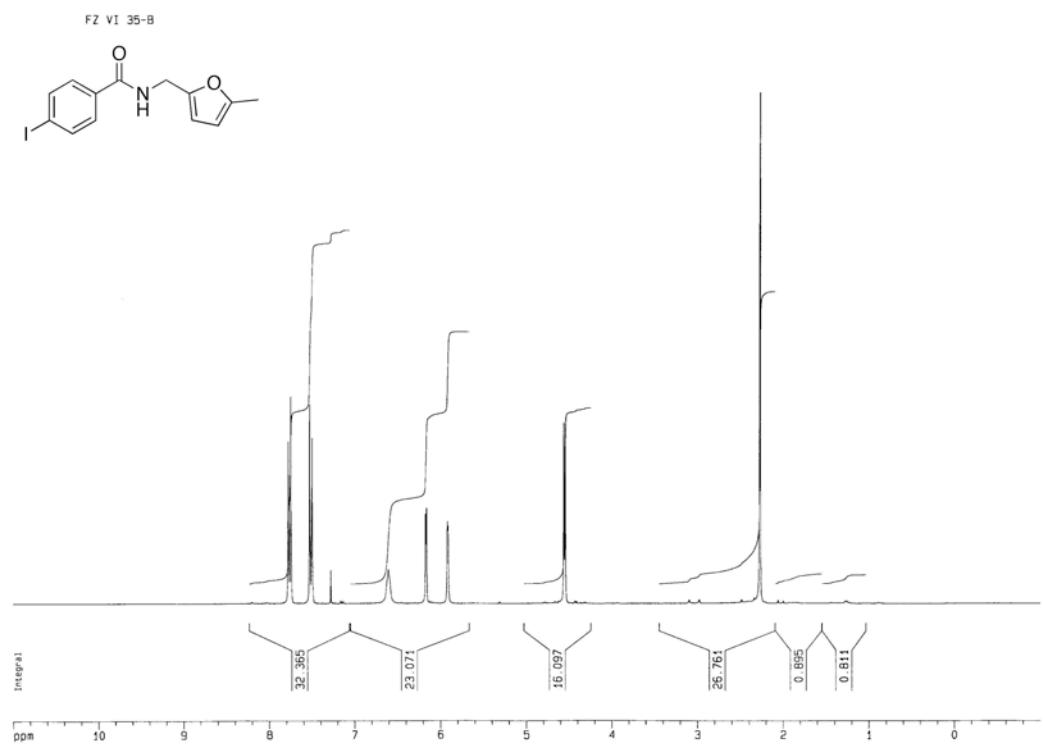
General Procedure for the formation of ureas and thioureas using ROMPGEL scavenger 2:

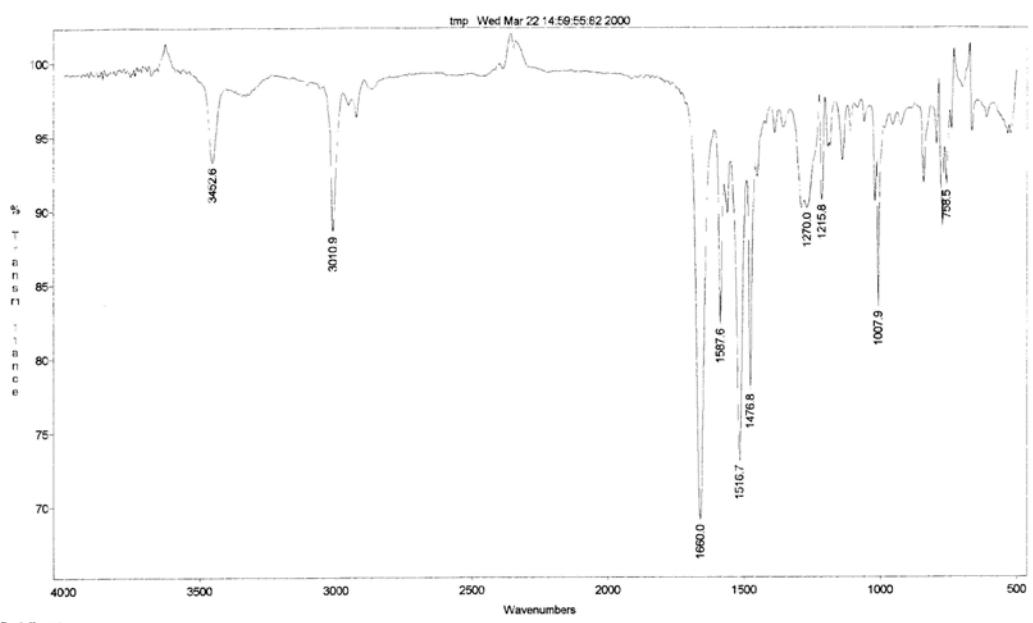
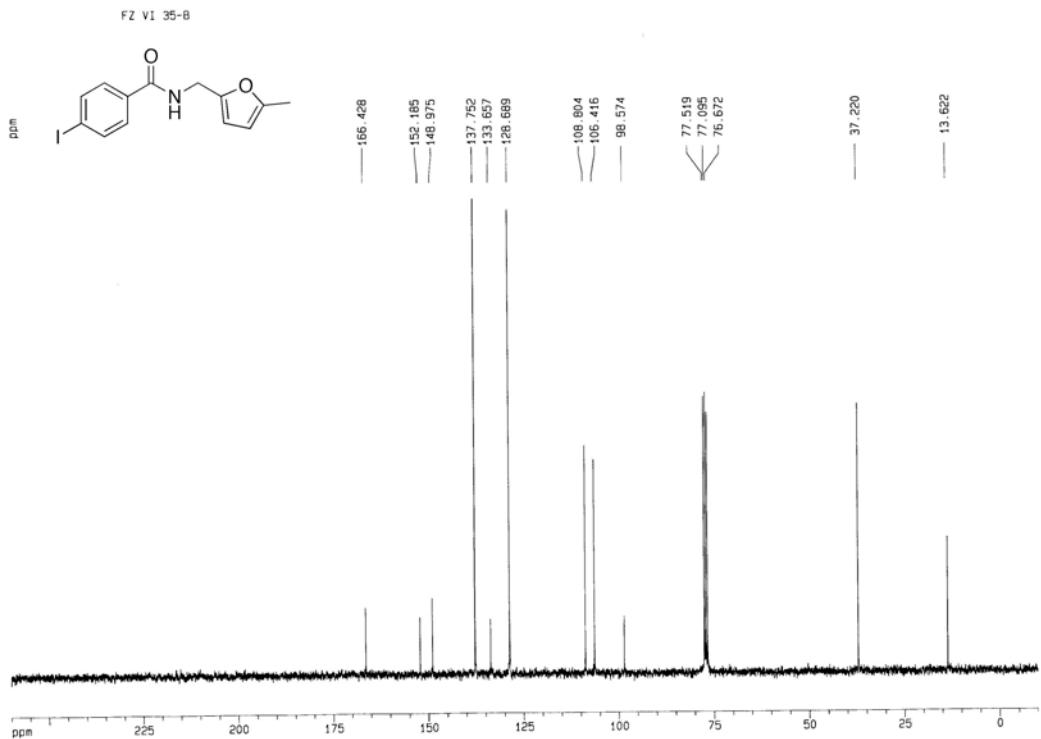
The amine (0.60 mmol) was added to the isocyanate or isothiocyanate (0.2 mmol) in CH₂Cl₂ (5 mL) at room temperature. The reaction mixture was stirred for 2 h, the ROMPGEL scavenger **2** (55.5 mg, 0.60 mmol) was added and stirring continued for 3 h. The reaction mixture was filtered through a frit and washed with CH₂Cl₂ (5 mL). Evaporation of the solvent under a stream of nitrogen gave the product urea or thiourea.

General Procedure for the formation of imines and hydrazones using ROMPGEL scavenger 2:

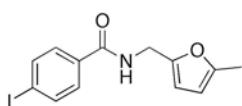
The amine or hydrazine (0.6 mmol) was added to the aldehyde (0.2 mmol), Et₂O (5 mL) and molecular sieves (100 mg, 4 Å) at room temperature. The reaction mixture was stirred for 2 h, the ROMPGEL scavenger **2** (55.5 mg, 0.60 mmol) was added and stirring continued for 3 h. The reaction mixture was filtered through a frit and washed with Et₂O (5 mL). Evaporation of the solvent was under a stream of nitrogen gave the product imine or hydrazone.

Representative spectra of an amide product **L**.





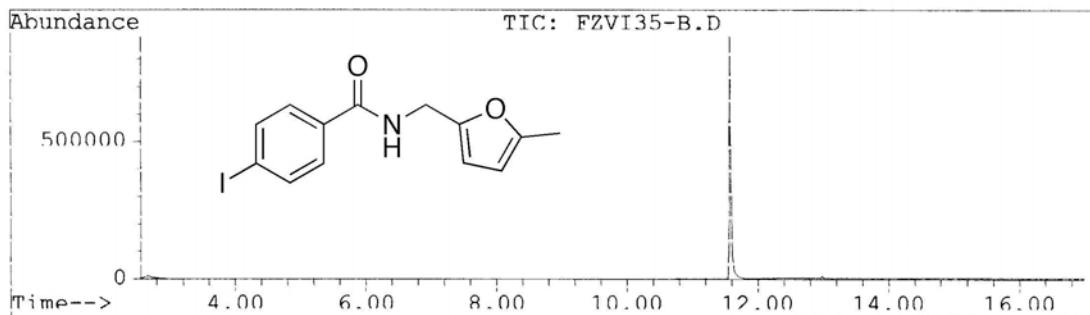
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 1007.9 83.52 758.5 91.74



Area Percent Report -- Sorted by Signal

Information from Data File:

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Operator :
Acquired : 13 Mar 100 5:56 pm using AcqMethod MIDTEMP
Sample Name:
Misc Info : fred
Vial Number: 3
CurrentMeth: C:\HPCHEM\1\METHODS\MIDTEMP.M



| Retention Time | Area | Area % | Ratio % |
|----------------------------------|----------|---------|---------|
| <hr/> | | | |
| Total Ion Chromatogram 11.578 | 13685846 | 100.000 | 100.000 |
