

5th International Conference on

Organic and Inorganic Chemistry

July 12-13, 2018 | Paris, France

Syntheses and crystal structures of two adamantylsubstituted 1,2,4-triazole-5-thione *N*-Mannich bases

Monirah Al-Alshaikh
King Saud University, Chemistry Department, Saudi Arabia

In the title *N*-Mannich bases, 3-(adamantan-1-yl)-4-(4-fluorophenyl)-1-[(4-phenylpiperazin-1-yl)methyl]-4,5-dihydro-1H-1,2,4-triazole-5-thione (C₂₉H₃₄FN₅S)(I), and 3-(adamantan-1-yl)-4-(4-fluorophenyl)-1-[[4-(2-methoxyphenyl)piperazin-1-yl]-methyl]-4,5-dihydro-1H-1,2,4-triazole-5-thione (C₃₀H₃₆FN₅OS) (II), fluorophenyl, adamantane and piperazine moieties are linked to a planar triazole ring. There is an additional phenyl ring on the piperazine ring in (I) and a methoxyphenyl ring in (II). In compound (I), the fluorophenyl and phenyl rings are inclined to the triazole ring by 86.55 (13) and 60.52 (12)°, respectively, and the two aryl rings are inclined to one another by 66.37 (13)°. In compound (II), the corresponding dihedral angles are 83.35 (13), 71.38 (15) and 11.97 (16)°, respectively. The crystal structure of (I) shows pairs of C—H...F hydrogen bonds forming inversion dimers, while in the crystal of compound (II), in addition to the C—H...F hydrogen bonds that generate chains parallel to the *b* axis, there are C—H... interactions present that link the chains to form layers parallel to the *ab* plane.

Biography

Monirah Al-Alshaikh has completed her PhD in Organic Chemistry in 1993. She is an Associate Professor from Chemistry Department, King Saud University. She has published more than 36 papers in reputed journals.

mshaikh@ksu.edu.sa

Notes: