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Antioxidant and Metal chelating Activities of Some Novel Phenothiazine incorporated Tetrazole Heterocycles

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ABSTRACT

A series of 10-substituted-2-(1H-tetrazol-5-yl)-10H-phenothiazines (**3a-f**) with good free radical scavenging activity (RAS) were synthesised. The compounds **3a**, **3b** and **3c** showed better (RAS) than the compounds **3d**, **3e**, **3f**. To prove whether these 10-substituted-2-(1H-tetrazol-5-yl)-10H-phenothiazines compounds may exert their antioxidant effect through transition metal ion chelation, the ferrous chelating abilities of these were investigated. The above results indicated that the transition metal ion chelation play an important role in their antioxidant.abilities.

Keywords: Phenothiazine, Tetrazole, Antioxidant activity, Metal chelating activity.