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Tautomerism in 2-ketomethylquinolineazines

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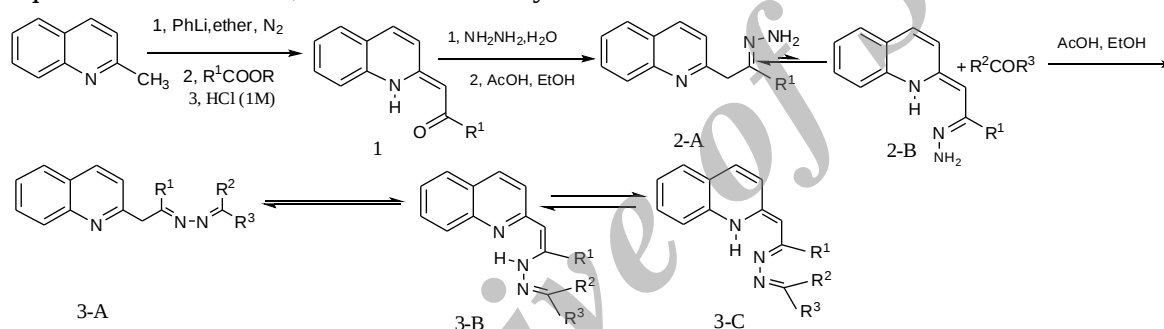
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Azines are a class of compounds that undergoes a wide variety of chemical processes and have interesting chemical properties [1]. New azines studied in the present paper have been synthesis in three steps. At first, a series of 2-ketomethylquinolines have been prepared using the literature methods [2]. Tautomerism for this group of compounds was also reported by several investigators [3]. In the next step 2-ketomethylquinolines in reaction with hydrazine in ethanol solution and a drop of acetic acid as a catalyst was converted to 2-ketomethylquinolinehydrazones in good to high yields. Structure of all compounds has been elucidated using spectroscopic methods and elemental analysis. Our study show that in chloroform solution generally two tautomeric forms are in equilibrium. However, in some cases only one tautomer was detected.



References

- [1] Sreerama, S. G.; Pal, S. *Inorg. Chem.* **2005**, *44*, 6299.
- [2] Loghmani khouzani, H.; Sadeghi, M. M.; Safari, J.; Minaeifar, A. *Tetrahedron Lett.* **2001**, *42*, 4363.
- [3] R. Gawinecki, E. Kolehmainen, H. Loghmani-Khouzani, B. Osmiałowski, T. Lovász, P. Rosa, *Eur. J. Org. Chem.*, 2006, 2817-2824.