

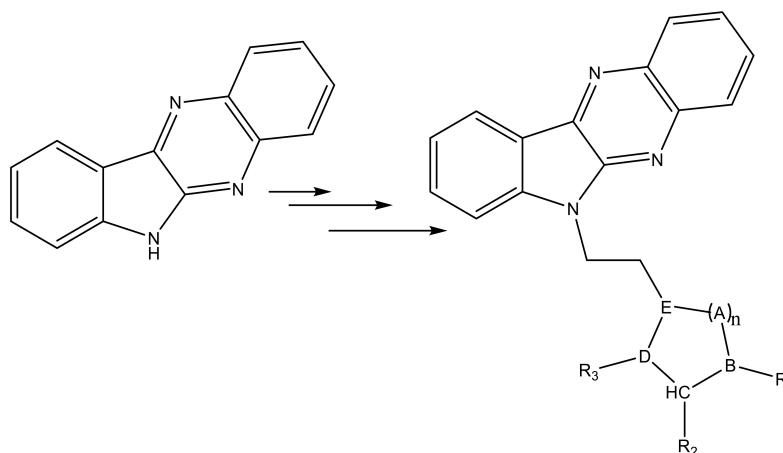
Synthesis and Characterization of Assorted Heterocycles Based 6H-indolo[2,3-b] quinoxaline

T. I. El-Emary¹

¹Chemistry Department, Faculty of Science, Assiut University, Assiut, 71516, Egypt

Efficient methodology for the synthesis of unrecorded series of heterocycles based indolo[2,3-b] quinoxaline sub-structure is reported. Indolo[2,3-b] quinoxaline heterocycles have been synthesized by employing ethyl 3-(6H-indolo[2,3-b]quinoxalin-6-yl)propanoate as starting material. The precursor -H-indolo[2,3-b]quinoxalin-6-yl)propanehydrazide 3 was synthesized by reaction of ethyl 3-(6H-indolo[2,3-b]quinoxalin-6-yl)propanoate with hydrazine in refluxing ethanol.

The structures of synthesized compounds were confirmed on the basis of their elemental analyses and spectral results (IR, MS, ¹H and ¹³C NMR).



A, B, C, D = C, O, N, S

R1, R2, R3 = aliphatic, aromatic, heterocyclic

Acknowledgements: We thank Assiut University, Assiut, Egypt for financial support.

- [1] El-Kashef, H. S.; El-Emary, T. I.; Gasquet, M.; Timon-David, P.; Maldonado, J.; Vanelle, P., *Pharmazie*, **2000**, 55, 572.
- [2] El-Emary, T. I.; Hussein, A. M.; El-Kashef, H. S. *Pharmazie*, **2000**, 55, 358..
- [3] El-Emary, T. I.; Bakhite, E. A., *Pharmazie*, **1999**, 54, 106.
- [4] El-Emary, T. I.; kamal El-Dean, A. M.; El-Kashef, H. S., *Farmaco* **1998**, 53, 383.
- [5] Aly, M. F.; El-Naggar, G. M.; El-Emary, T. I.; Grigg, R.; Metwally, S. A. M.; Sivangaman, S., *Tetrahedron* **1994**, 50, 895.
- [6] Youssef, M. S. K.; Abeed, A. A. O; El-Emary, T. I., *Heterocycl. Commun.* **2017**,