



Dr Mehbub Momin  
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I work on the synthetic medicinal chemistry. I completed PhD in chemistry from University of Kwazulu Natal in 2013. I am an enthusiastic and motivated synthetic medicinal chemistry researcher with broad experience in multi-step synthesis with most modern techniques and reactions and strong knowledge of dealing with fluorine NMR.

## CURRENT RESEARCH

### Topic

Synthesis and characterization of sofalcone derivatives.

### Methodology

- Synthesis of different types of derivatives.
- Structural characterization by <sup>1</sup>H NMR, <sup>13</sup>C NMR, FTIR, GC, UV-VIS Spectroscopy.
- Computational studies.
- Calculation of Quantum-Mechanical Descriptors.

### Application

Screening for Biological activity (eq Anticancer, Antifungal, Antibacterial, etc) with computational studies.

## UKZN main Publications

1. Momin, M.I.K., Ramjugernath, D., Chenia, H. and Koorbanally, N.A., Synthesis, crystal structure and evaluation of novel fluorinated 2-styrylchromones as antibacterial agents, Journal of chemistry, 2013,
2. Mehbub I. K. Momin, Neil Koorbanally, Deresh Ramjugernath and Muhammad D. Bala, "6-Hydroxy-2H-1,3-benzodioxole-5-carbaldehyde", Acta Crystallographica (2011), Section E67, o2681.
3. Momin, M.I.K., Pawar, S., Koorbanally, N.A., Su, H. and Ramjugernath, D., 2-Acetylphenyl(2E)-3-(4-fluorophenyl)acrylate, Acta Crystallographica Section E, 2012, E68, o3049.

## Past Researches

1. Design and execute the synthesis of the desired organic compounds.
2. Scale up the new processes to pilot plant; Optimize the existing chemical processes.

## Future Interests

1. Synthesis of biological active molecules towards Drug designing.
2. 2D, 3D QSAR, Molecular Modeling, Computational Chemistry.

## Extra Interests

Sports ( Cricket, football, volleyball ) , Travels, Associative action