

## **Knowledge-base approach for finding optimal series of reactions for organic compound conversions**

P.G.T.H. Kashmira\*

*Department of Physical Sciences, Rajarata University of Sri Lanka, Mihintale, Sri Lanka*

This paper aims to identify a suitable approach to find various possible paths to perform organic conversions, and to find an optimal path among them. For that this paper describes about the knowledge-base approach under three sections. They are; representing different organic compounds in the knowledge-base, representing different organic reactions in the knowledge-base and evaluating different searching strategies to find the conversion paths. Finally this paper proposes general logical representation mechanisms for different organic compounds and different organic reactions. Also experimental results show that the performance of the system depends on the number of rules in the knowledge-base, type of the reactant and the number of steps for the conversion.

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\*[thkashmira@gmail.com](mailto:thkashmira@gmail.com)