

## Synthesis of N-Alkylated and N-Acylated derivatives of girinimbine

### ABSTRACT

Girinimbine, a carbazole alkaloid has drawn an attention due to its wide range of pharmacological effects such as antiplatelet, antibacterial and anticancer activities. Five new derivatives of girinimbine were successfully semi-synthesized via modification on N-terminal of naturally isolated girinimbine. N-Benzylgirinimbine, N-butylgirinimbine and N-isopentylgirinimbine were obtained from alkylation reaction, whereas, N-butyrylgirinimbine and N-methylbutyrylgirinimbine were obtained from acylation reaction. The structures of synthesized girinimbine derivatives were confirmed by spectroscopic techniques.

**Keyword:** Alkylation; Carbazole; Girinimbine; N-Derivative