

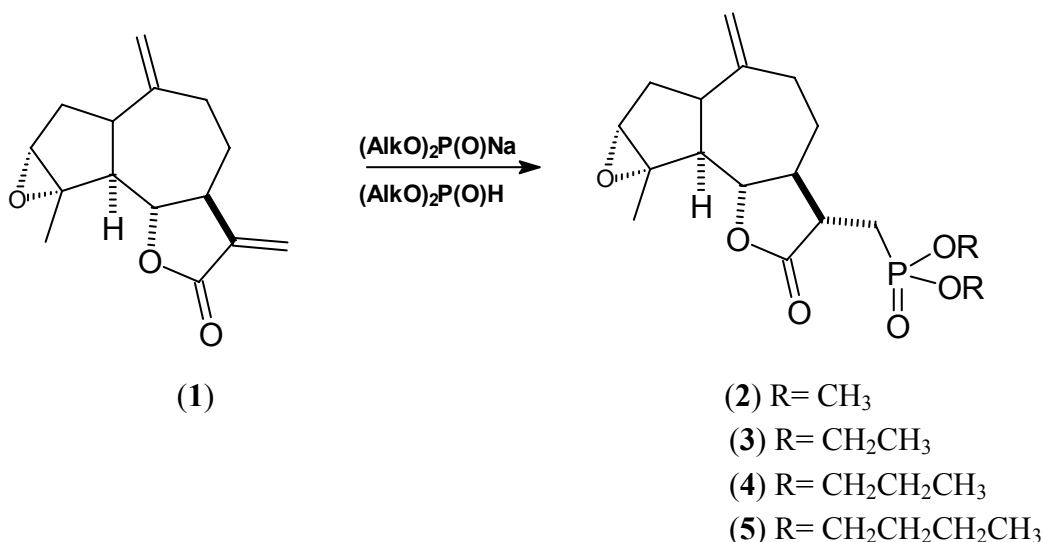
## Synthesis of New Dialkylphosphonates of Estafiatine

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Continuing researches on chemical modification of sesquiterpene lactones molecules by introducing of the phosphorus-containing functional groups [1-3] we obtained new derivatives (**2-5**) from known guaianolide estafiatine (**1**) which was isolated from *Achillea nobilis* L.



The structures of derivatives (**2-5**) were determined based on IR-, mass-, UV-, NMR- (<sup>1</sup>H-<sup>1</sup>H COSY, <sup>1</sup>H-<sup>13</sup>C COLOC, <sup>31</sup>P) spectral data.

### Refs.

1. R.I. Dzhalmahanbetova, Ye.M. Suleimenov et al, *Khim. prirod. soedin.*, № 6, 440 (2002).
2. R.I. Dzhalmahanbetova, B.B. Rakhimova et al, *Khim. prirod. soedin.*, № 6, 437 (2002).
3. R.I. Dzhalmahanbetova, B.B. Rakhimova et al, *Isv. AN. Ser.Chim.*, № 3, 715 (2003).