

## Synthesis of Sinomenine Derivatives

V.N.Osipov<sup>1</sup>, V.G.Kartsev<sup>2</sup>

<sup>1</sup>New Chemistry Horizons Labs Ltd., Kashirskoe sh. 24/15, Moscow, Russia

fax: +7(095)111-9212,

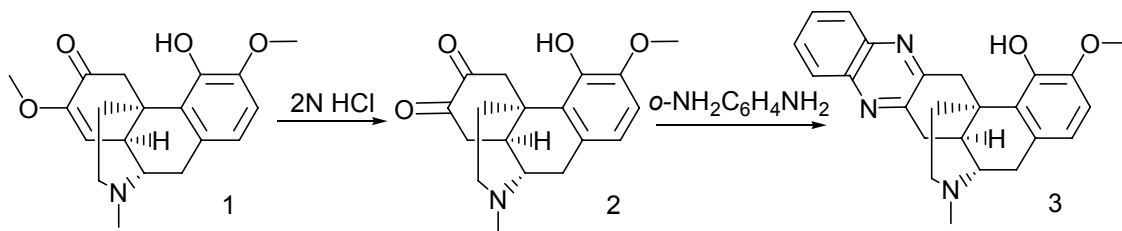
e-mail: [info@nchlab.com](mailto:info@nchlab.com), [sales@nch-labs.com](mailto:sales@nch-labs.com)

<sup>2</sup>InterBioScreen Ltd., PO Box 218, Moscow, 121019 Russia,

e-mail: [screen@ibscreen.chg.ru](mailto:screen@ibscreen.chg.ru)

The alkaloid sinomenine **1** (extracted from *Sinomenium acutum*) is being long used in traditional Chinese and Japanese medicine for curing such deceases as neuralgia, rheumatism, cough syndrome, etc. [1]. To date, this compound has been found to exhibit some new medicinal properties [2, 3, 5, 6].

An acid hydrolysis of sinomenine is known to result in formation of sinomenine hydrate and bisdemethylsinomenylidene (besides sinomenone **2**) [4]. We have found the hydrolysis conditions that ensure preparation of sinomenone **2** as a sole product (without hydration and subsequent dimerization).



The condensation of 1,2-diketone (**2**) with *o*-phenylenediamine yielded quinoxaline derivative **3**. The structure of synthesized compounds was confirmed by <sup>1</sup>H NMR and mass spectra.

- [1] Wong K.C., *et al.*, *History of Chinese Medicine*, Shanghai: National Quarantine Service, 1936, p. 119.
- [2] Yamasaki H., *Acta Med. Okayama* 1976 **30** 1–20.
- [3] Junbao H. *et al.*, *J. Xia'an Med. Univ.* 1995 **4** (1) 16–19.
- [4] Goto S., *Bull. Chem. Soc. Jpn.* 1935 **10** 599.
- [5] Hojo H. *et al.*, *J. Immunopharmacol.*, 1985, **7**, 33.
- [6] Liu L. *et al.*, *Arzneim.-Forsh.*, 1994, **44**, 1223.