

## Molecular and crystal structure of the $\alpha$ -(*N*-benzoxazolyn-2-on)acetic acid

© Gavkhar Sh. Karimova,<sup>1</sup> Mukhobat M. Ishankhodzhaeva,<sup>2+</sup> Shaknoza A. Kadirova,<sup>1\*</sup>  
Nosir D. Mukhamedov,<sup>3</sup> and Nusrat A. Parpiev<sup>1</sup>

<sup>1</sup>Department of General, Inorganic and Analytical Chemistry. Chemical Faculty.

M. Ulugbek National University of Uzbekistan. Vuzgorodok, Tashkent, 100174. Uzbekistan.

Phone: +7 (10-998-71) 246-07-88.

<sup>2</sup>Department of Physical and Colloid Chemistry. St. Petersburg State Technological University of Plant

Polymers. Ivan Chernykh St., 4. St. Petersburg, 198095. Russia. Phone: +7 (812) 786-57-44.

E-mail: [imukhabat@yandex.ru](mailto:imukhabat@yandex.ru), [shahnoza1975@mail.ru](mailto:shahnoza1975@mail.ru)

<sup>3</sup>S. Yu. Yunusov Institute of Chemistry of Plant Substances. Uzbekistan Academy of Sciences.

Mirzo Ulukbek St., 77. Tashkent, 100170. Uzbekistan. E-mail: [nasirxon@rambler.ru](mailto:nasirxon@rambler.ru)

\*Supervising author; +Corresponding author

**Key words:** derivatives of  $\alpha$ -(*N*-benzoxazolyn-2-on)acetic acid, herbicidal, fungicidal and insecticidal activity.

### Abstract

The  $\alpha$ -(*N*-benzoxazolyn-2-on) acetic acid C<sub>9</sub>H<sub>7</sub>NO<sub>4</sub> was synthesized by interaction of benzoxazolyn-2-on with monochloroacetic acid. Its structure was investigated by methods of IR and <sup>1</sup>H NMR spectroscopy and X-ray diffraction analysis. It has been shown, that in crystal structure of compound, due to the presence of the symmetry of the inversion centre, molecules generate antiparallel layers.