

## عنوان مقاله:

Investigating the effect of carbendazim poison on elastase enzyme using Thermal Stability, FTIR and docking methods

## محل انتشار:

چهارمین کنفرانس بین المللی یافته های پژوهشی در علوم پایه و علوم مهندسی (سال: 1402)

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## خلاصه مقاله:

Carbendazim is a systemic fungicide with the molecular formula  $C_9H_9N_3O_2$ . This type of fungicide is used to control and treat diseases caused by fungi on vegetables, fruits and various types of plants. Carbendazim causes infection in humans through routes such as mouth, skin, and inhalation and it is considered an environmental pollutant. In fact, the components resulting from the decomposition of this compound, for example, amino bezimidazole, limit cell division by acting on microtubules. And as a result, reproductive damage or fertility disorders are created. Elastase is a glycoprotein enzyme that belongs to the serine proteases family, which breaks down peptide bonds. It is secreted from the endocrine gland of the pancreas and is one of the proteases that catalyze the breakdown of elastin protein, a component of connective tissue. In a recent study, the effect of carbendazim on elastase enzyme was investigated using FTIR and TM spectroscopy. The results showed that carbendazim makes the elastase enzyme more unstable and also affects its secondary structure.

## کلمات کلیدی:

Carbendazim, fungicide, Elastase, spectroscopy

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1897550>

