

## عنوان مقاله:

Report on Biotechnological Applications of Proteolytic Enzymes from Lattices of Euphorbian Plants

## محل انتشار:

شماره ۴ دوره ۲ فصل AUTUMN (سال: ۱۳۹۴)

تعداد صفحات اصل مقاله: ۵

## نویسندگان:

Raghunath Mahajan - Department of Zoology, Moolji Jaitha College, Jalgaon, India

Gunjan Chaudhari - Department of Biochemistry, Moolji Jaitha College, Jalgaon, India

Manoj Chopadaa - Department of Zoology, Moolji Jaitha College, Jalgaon, India

## خلاصه مقاله:

Proteases catalyze the hydrolysis of peptide bonds in proteins. They are widely distributed in nature, nearly in all plants, animals and microorganisms. Plant latex is a rich source of proteases. Latex production is a unique property of Euphorbian plant, which could be a potential source of proteolytic enzymes. The highest proteolytic activity was observed in the latex of *Pedilanthus tithymaloides* Linn., which is followed by lattices of *Euphorbia tirucalli* Linn., *Euphorbia nivulia* Buch.-Ham., and *Euphorbia nerifolia* Linn. Therefore, *P. tithymaloides*, *E. tirucalli*, *E. nivulia*, and *E. nerifolia* lattices were selected as potential sources of proteases. These proteases were effectively used to remove hair from goat skin indicating its potential in leather processing industry. These proteolytic enzymes showed potential environmental waste management applications such as degradation of chicken feather waste. Additionally, the crude enzymes of the selected plants exhibited potent gelatinolytic activity almost correlated to release of silver from waste X-ray film. They also showed remarkable destaining property, indicating their importance in detergent industry. These enzymes have remarkable silk degumming property demonstrating their use in textile industries.

## کلمات کلیدی:

Plant Protease, Latex, Euphorbiaceae, Biotechnological Applications

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/۵۴۱۲۵۱/>