



Vabilo na predavanje

Petek / Friday 17. 11. 2017, ob / at 12:00

Velika predavalnica / Great Lecture Hall,
National Institute of Chemistry; Hajdrihova 19, Ljubljana

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**The role of active site flexible loops in catalysis and of zinc in
conformational stability of
Bacillus cereus 569/H/9 β -lactamase**

Metallo- β -lactamases catalyse the hydrolysis of most β -lactam antibiotics and hence represent a major clinical concern. The conformational properties of the BcII β -lactamase have been studied in the presence of chemical denaturants, using a variety of techniques, including enzymatic activity measurement and fluorescence, circular dichroism, and 2D NMR spectroscopies. The data from the various experiments provide evidence that binding of two zinc ions not only increases the conformational stability of the BcII metallo- β -lactamase, but also restores the 3D structural organization that is lost for apoBcII unfolding in the presence denaturant. Moreover the results highlight the importance of a relatively well-defined conformation for two loops that border the active site in order to maintain enzymatic activity.

Vljudno vabljeni / Kindly invited