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High Resolution Measurements In U-Channel Technique And Implications For Sedimentological Purposes

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Mechanical features in-stu drilling for sediment cores and vacuum forces that affect while obtaining the sediments to the core tube are formed concave shaped deformations. Even in the half sections, concave deformation form still appears.
During MCSL measurements, Laminae which forms concave shaped deformation, show interference thus, values indicate overall results for several laminae instead of single lamina. These interferenced data is not appropriate for paleoceanography studies which require extend accuracy and high frequency data set to describe geochemical and climatological effects in high resolution. U-Channel technique provides accurate location and isolated values for each lamina.
In EMCOL Laboratories, U-channel provide well saturated and air-free environment for samples and, by using these technique U-channels are prepared with modificated MCSL for data acquisition. Even below millimeter scale sampling rate provides the separation of each lamina and, physical properties of every each lamina.
Cover of u-channel is made by homogenous plastic in shape of rectangular prism geometry. Thus, during measurement, MSCL sensors may harm the sediment; however u-channel covers the sediment from this unwanted deformation from MSCL itself. U-channel technique can present micro scale angular changes in the laminae.
Measurements that have been taken from U-channel are compared with the traditional half core measurements. Interestingly, accuracy of the positions for each lamina is much more detailed and, the resolution is progressively higher. Results from P Wave and Gamma ray density provide removed interference effects on each lamina. In this technique, it is high recommended that U-channel widens the resolution of core logging and generates more cleansed measurements in MCSL. For P- Wave Used Synthetic seismograms that modelled by MSCL data set which created from U-channel technique dictates each anomalies related with climatological and geological changes.

Keywords: u channel , P-Wave, Gamma Ray Density, High resolution measurements, Data accuracy