

Three dimensional deformation of accretionary wedge: insights from wide sandbox experiments

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Wide sandbox experiments are used to study the three dimensional deformation processes of accretionary wedge. In previous studies, they mainly focus on two dimensional deformation in depth and subduction directions or introduce intentional heterogeneity in the incoming plate such as seamounts. Although we do not introduce any intentional heterogeneity, the results show that wedge front shape is spontaneously curved as seen in the real subduction zones.