

## **A Study on Holosen-Pleistosen Sedimentology of Morphotectonic Structure and Seismicity of Gökova Bay**

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**Abstract :** In this research which has been prepared to show the relationship between Gökova Bay's morphotectonic structure and seismicity, it is clear that there are many active faults in the region. The existence of a thick sedimentary accumulation since Late Quaternary times is obvious as a result of the geophysical workings in the region and the interpretation of seismic data which has been planning to be taken from the Bay. In the regions which have been tectonically active according to the interpretation of the taken data, the existence of the successive earthquakes in the last few years is remarkable. By analyzing large earthquakes affecting the areas remaining inside the sediments in West Anatolian Collapse System, this paper aims to reveal the fault systems constituting earthquakes with the information obtained from this study and to determine seismicity of the present residential areas right next to them. It is also aimed to anticipate the measures to be taken against possible earthquake hazards, to identify these areas posing a risk in terms of residential and urban planning and to determine at least partly the characteristics of the basin.

**Keywords :** Gökova Bay, sedimentation, seismic, West Anatolian

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