



Investigation of frequency content and Stress drop based on Main shock Records Darb_e_Astaneh (Silakhor) Earthquake, March 31, 2006

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On Friday morning of March 31, 2006 at 01:17:02(UTC), an earthquake with a magnitude of Mw6.0 occurred in Lorestan province between Brojerd and Dorud, west of Iran. Iran strong ground motions were recorded by 24 set of SSA-2 digital accelerographs (BHRC). The maximum acceleration was recorded in Chalan choolan station with the peak value of about 522 cm/s² on vertical components. The epicenter of this event has been located at 33.583N, 48.800E (NEIC), 33.62N, 48.91E (IIEES). This study will summarize the result of a study on the assessment of Mw and a study on the Corner frequency (f_c), frequency content and the variations of stress drop. So, Our study showed that Stress drop based on main shock records changes between 70 to 300 bar that it is in accordance with Zagros region. Magnitude of moment for Main shock Records Darb_e_Astaneh (Silakhor) Earthquake, is estimated to be mainly Mw=6.0.