عنوان مقاله:
FREQUENCY CONTENTS OF STRONG MOTIONS FROM ROMANIAN SUBCRUSTAL EARTHQUAKES

محل انتشار:<br>هفتمين كنفرانس بين المللى زلزله شناسى و مهندسى زلزله (سال: 1394)<br>نويسندكان:<br>Dan LUNGU - Professor, Technical University of Civil Engineering, Bucharest, Romania<br>Florin PAVEL - Assistant professor, Technical University of Civil Engineering, Bucharest, Romania<br>Radu VACAREANU - Professor, Technical University of Civil Engineering, Bucharest, Romania


#### Abstract

خلاصه مقاله: The earthquakes of March 1977, August 1986 and May 1990 represent the largest intermediate-depth seismic events produced in the Vrancea seismic zone in the past 70 years. Over 90 pairs of horizontal recordings were obtained during these earthquakes and their frequency contents is analysed in this paper. In addition, the characteristics of the most important strong ground motion recorded in Romania - the recording from INCERC station are discussed and evaluated, as well. The analyses of the frequency content of recorded ground motions reveal long predominant frequencies in Bucharest observed during the larger magnitude earthquakes of March 1977 and August 1986. Two definitions of the control period TC given by Newmark and Hall $(1969,1982)$ and Lungu et al. (1997) are applied on the available strong ground motion database in order to evaluate the frequency content. The shape of the normalized acceleration response spectra as a function of the cycle duration and number of cycles of the ground motions are investigated using the recording from INCERC station and the recording obtained at Mexico-City SCT station during .the 1985 Michoacan seismic event


كلمات كليدى: Frequency Content Indicators, Response Spectra, Dynamic Amplification Factor


