There are correlations between longitude and such geochemical parameters as Eu and Sm concentrations and Sc/Sr, Ti/Sr, and Ca/Na ratios [1]. These correlations are based largely on western samples (Apollo 12 and 14); differences in the geochemical parameters are less dramatic between samples from Luna 16 and 20, the easternmost sites, and those from Apollo 11, 15, 16, and 17, which lie between the western and far-eastern sites. To test the longitude-geochemical variation, we have analyzed by INAA two Luna 16 and sixteen Luna 20 nonmare lithic fragments. The new data set more than doubles the existing data base for far-eastern samples. We report here the INAA results (see Table and Figures), but defer discussion of the implications of the data until petrologic data are available and until we complete a statistical analysis of all data for eastern and far-eastern nonmare samples. We note, however, that the composition of sample 21013,49b is strikingly similar to that of ALHA81005, a meteorite derived from the lunar highlands [2,3].

References:
2) Leud, J.C., this volume.
3) Kallemeyn, G.W. and Wasson, J.T., this volume.