Advance in Sold Earth Science: Present and Future

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In this talk, we will review the recent advance in solid Earth Science, which includes solid geophysics (earthquake, volcanism, geodesy, geomagnetism, gravity, internal structure of the Earth, earthquake and volcanic hazards, etc), geology (sedimentation, crust, dating, tectonics), mineralogy/petrology/ resource geology (earth and planetary material, earth evolution, crust/mantle/core, magma, fractionation and concentration of elements), geochemistry (distribution of elements, isotopes, circulation of earth's materials, crust and mantle chemistry).

We will describe the topics or research fields in which remarkable advances were achieved, and we will evaluate the performance of Japanese scientists in these active fields whether we could participate or contribute to the remarkable advance or not. We will identify the research fields in which we can expect significant developments and achievements in next ten years, and will argue the necessary supports from our community and governments.

The members for preparation of this review on the activity of sold earth science field are Prof. Akira Hasegawa (Tohoku U.), Prof. Gaku Kimura (U. Tokyo), Prof. Eiji Ohtani (Tohoku U., Chair), Prof. Eiichi Takahashi (Tokyo Inst. Tech), and Dr. Shigeko Togashi (AIST).