

## Development of browser of geochemical data using Google Earth

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Rapid advances in web technologies and networks, which have occurred since 1990's, allow us to access large sizes of data and new tools for data visualization and integration. In geoscience, these advances lead to collections of a wide suite of data across the geoscience, to increasing number of data in various databases and to potential development of new multidisciplinary fields.

We have developed a new tool to display the geochemical and geophysical data in Google™ Earth. The Google Earth is a free mapping software based on high-resolution aerial photographs (<http://earth.google.com/>). The KML (Keyhole Markup Language) file for display in Google Earth is produced using the conversion tool we have developed. The tool can convert the files with geochemical data. The type of the data files are Microsoft excel, csv and text files with the same format as that of a data file downloaded from open databases such as PETDB (<http://www.petdb.org/index.jsp>) and GEOROC (<http://georoc.mpch-mainz.gwdg.de/georoc/>). Chemical compositions of the rock and sediment samples are displayed as bar charts. Also, single element concentrations, elemental ratios and isotopic compositions of samples can be shown in color bars with a gradient, if necessary. This tool will be open as a web application software in our website soon. The tool allow us to overlay the geochemical data on geophysical data such as tomography model in Google Earth and may promote possible development of new multidisciplinary fields.