



## Open geochemical database

Denis Zhilin (1), Vladimir Ilyin (2), and Anton Bashev (2)

(1) Moscow Institute for Open Education, Chemistry, Russian Federation (zhila2000@mail.ru), (2) School #192, Moscow, Russia

We regard “geochemical data” as data on chemical parameters of the environment, linked with the geographical position of the corresponding point. Boosting development of global positioning system (GPS) and measuring instruments allows fast collecting of huge amounts of geochemical data. Presently they are published in scientific journals in text format, that hampers searching for information about particular places and meta-analysis of the data, collected by different researchers. Part of the information is never published. To make the data available and easy to find, it seems reasonable to elaborate an open database of geochemical information, accessible via Internet. It also seems reasonable to link the data with maps or space images, for example, from GoogleEarth service.

For this purpose an open geochemical database is being elaborating (<http://maps.sch192.ru>). Any user after registration can upload geochemical data (position, type of parameter and value of the parameter) and edit them. Every user (including unregistered) can (a) extract the values of parameters, fulfilling desired conditions and (b) see the points, linked to GoogleEarth space image, colored according to a value of selected parameter. Then he can treat extracted values any way he likes.

There are the following data types in the database: authors, points, seasons and parameters. Author is a person, who publishes the data. Every author can declare his own profile. A point is characterized by its geographical position and type of the object (i.e. river, lake etc). Value of parameters are linked to a point, an author and a season, when they were obtained. A user can choose a parameter to place on GoogleEarth space image and a scale to color the points on the image according to the value of a parameter.

Currently (December, 2009) the database is under construction, but several functions (uploading data on pH and electrical conductivity and placing colored points onto GoogleEarth space image) are available yet. We hope that open database will help exchanging geochemical information and call everybody for sharing the geochemical data. We also call for feedback on the structure, interface and operation of the database.