

## **LAPIDATOR PROJECT – KOCH SÁNDOR MINERAL COLLECTION, DEPARTMENT OF MINERALOGY, GEOCHEMISTRY AND PETROLOGY, UNIVERSITY OF SZEGED**

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The main goal of the Lapidator Project is to compile the digital archive of the Koch Sándor Mineral Collection, which is located at the Department of Mineralogy, Geochemistry and Petrology, University of Szeged. The archive would be managed by an up-to-date software, handling 2D and 3D photographs and databases on the characteristics of minerals.

As an early outcome of the project we have already set up a software, which goes well beyond the execution of ordinary database commands, and ensures the technical background for various educational, demonstrational and promotional projects.

Preliminary works have started with the planning of the general setup of the system. As a first step a Systematic Mineralogy Database was constructed on the basis of the IMA (International Mineralogical Association) accepted minerals ([www.mindat.org](http://www.mindat.org), [www.webmineral.com](http://www.webmineral.com), [www.matident.com](http://www.matident.com), etc.). This contains the name, taxonomy, formula, elementary composition, physical characteristics, and photographs of the minerals. Further sub-databases were also added to the software in order to enhance the primary, systematic framework. These are: the digital Koch Sándor Mineral Database, the archive of Hungarian mineralogical publications, and the most important places of occurrences within the Carpathian Basin, supplemented with maps. The basis of the software, i.e. the Systematic Mineralogy Database, also provides a didactic guideline for the user to digest

the presented knowledge. The digital Koch Sándor Mineral Database includes all the 6000 minerals of the collection, with 3D rotating images of some of the most beautiful pieces, exhibited at the department in glass-cases. With a simple search one can gather the publications of the previous decades that write about or mention a chosen mineral. Further important information can be gained by checking the places of occurrence and accessibility on maps covering the whole Carpathian Basin. Beside all of these, the software can also give a historical view on the life and work of famous scientists dealing with mineral collection.

The appearance of the software was designed to be simple and elegant at the same time. Different options can be accessed easily, while parameters referring to each other and hypertext solutions provide a web like character for the whole system. In accordance with the Hungarian user environment the software is supported by Win32 based operational systems, however current developments aim at involving Macintosh based systems too. The installed software downloads updates and changes in the database through the Internet automatically, thus the user is always faced with the latest version of the digital collection.

In all we have produced a software which is ready to be applied by people of any age, both with a professional or non-professional background and either for research or simply for studying the wonders of minerals.