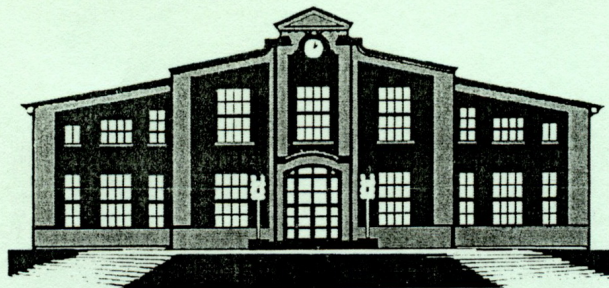


SOFIA INITIATIVE
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X International Symposium
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СОФИЙСКАЯ ИНИЦИАТИВА
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**ABSTRACTS
ТЕЗИСЫ**

EARTH AND MAN NATIONAL MUSEUM
4, Cherny vruh Blvd., 1421 Sofia, Bulgaria
14-16 OCTOBER 2019

НАЦИОНАЛЬНЫЙ МУЗЕЙ „ЗЕМЛЯ И ЛЮДИ”
бульвар „Черни връх” 4, София 1421, България
14-16 ОКТЯБРЬ 2019

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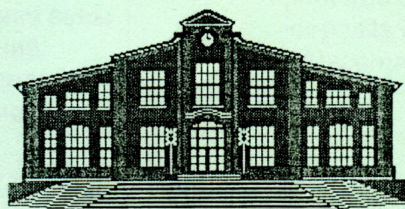
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THE DATABASE AND CORRESPONDING INFORMATION-CALCULATION TOOLS FOR MINERALOGISTS AND CRYSTALLOGRAPHERS «WWW-MINCRYST»

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20 years ago, a database WWW-MINCRYST and related information and calculation tools for mineralogists and crystallographers have been created and since then have been developing all the time. This Internet-oriented information-calculation system (ICS) WWW-MINCRYST intended for work with crystal structures of minerals, their synthetic analogs and elements. This system is designed to provide specialists in the field of mineralogy and crystal chemistry with the most complete and relevant information on the structure of minerals. The ICS became one of the first both in Russia, and in world practice of Earth's sciences. The ICS main components are actually a database (about **10725** records for almost **4430** unique phases – October 2019), supplied with a power complex of tools of search and information choice, means of multimedia representation of information (interactive polyhedral- and sphere-drawn crystal structures, different types of spectral drawing, etc.), opportunities of processing of spectral information, system of dynamic cross-references to mineralogical databases and search tools. The ICS is available at <http://mincryst.iem.ac.ru> or <http://database.iem.ac.ru/mincryst> without any restrictions.

The information fund of WWW-MINCRYST contains now about 10725 records, including more than 4130 unique mineral (IMA approved) and synthetic analogues names (300). About 400 new and 150 revised records are added to system annually. Each record contains "monocrystal" and "polycrystal" characteristics of a crystal phase. The database supports powerful system of complex search tools on many parameters, including names, complicate chemical composition, structural characteristics, sources of information etc. In recent time search by chemical groups is added. The built-in program «WWW-Crystpic» gives an effective interactive graphic representation of model of crystal structure both in balls and in polyhedrons. A wide change of parameters of demonstration of structure, direct calculation of interatomic distances, angles and cell parameters are possible. The module «WWW-Mixipol» allows users to get graphic representations of quasi-real full profiles of calculated polycrystals-roentgenograms including a mode of mixture of different minerals (up to 6 kinds of minerals). The ICS supports dynamic cross-references with the leading mineralogical databases plus worldwide search systems. Information from the database can be easily automatically integrated into any Internet collection of data on minerals, including primarily museum collections.

The database is very popular among scientists. Annually (2018) ICS WWW-MINCRYST gives out more than to 69000 users nearby 170 gigabyte of the data.