

SOFIA INITIATIVE
„MINERAL DIVERSITY
PRESERVATION”

СОФИЙСКАЯ ИНИЦИАТИВА
„СОХРАНЕНИЕ МИНЕРАЛЬНОГО
РАЗНООБРАЗИЯ”

IX
INTERNATIONAL
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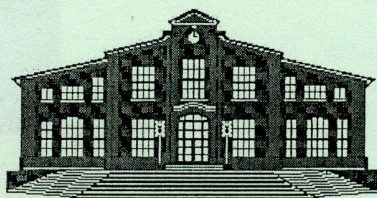
IX
МЕЖДУНАРОДНЫЙ
СИМПОЗИУМ

MINERAL
DIVERSITY
RESEARCH
AND PRESERVATION

МИНЕРАЛЬНОЕ
РАЗНООБРАЗИЕ
ИССЛЕДОВАНИЕ
И СОХРАНЕНИЕ

ABSTRACTS

ТЕЗИСЫ



EARTH AND MAN
NATIONAL MUSEUM
4, Cherny vruh Blvd., 1421 Sofia, Bulgaria
16-18 OCTOBER 2017

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„ЗЕМЛЯ И ЛЮДИ”
бул. „Черни връх” 4, София 1421, България
16-18 ОКТЯБРЬ 2017

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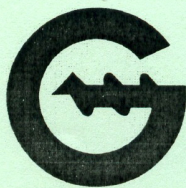
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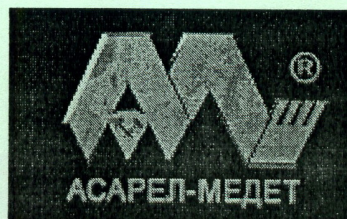
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ФОНДАЦИЯ „АСАРЕЛ“



ДЪНДИ ПРЕШЪС МЕТАЛС ЧЕЛОПЕЧ ЕАД

THE INFORMATION-CALCULATION SYSTEM OF MINERALOGY AND CRYSTAL CHEMISTRY «WWW-MINCRYST»: 20 YEARS OF DEVELOPMENT

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The Internet-oriented WWW-MINCRYST information-calculation system (ICS) intended for work with crystal structures of minerals, their synthetic analogs and elements is described here. The ICS main components are actually a database (about **10100** records for almost **4200** unique phases – October 2017), supplied with a 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 primary local crystallochemistry database MINCRYST has been created in 1985 under leadership of Anatoly Chichagov, and, thus, authors collect and process the actual crystallographic data to database and ICS already more than 30 years. Anatoly Chichagov became the main initiator of creation of ICS and its ideological “locomotive”. Almost 20 years ago, in 1997, Internet-oriented prototype of database WWW-MINCRYST has been created and till now the successfully develops. The ICS became one of the first both in Russia, and in world practice of Earth’s sciences.

The information fund of WWW-MINCRYST contains now about 10100 records, including more than 4000 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 of phases on many parameters, including names, complicate chemical composition, structural characteristics, sources of information etc. 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. In recent time search by chemical groups is added. Currently, a full renovation of the user-friendly system interface is carried out.

Annually (2016) ICS WWW-MINCRYST gives out more than to 48000 users nearby 170 gigabyte of the data.

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