BINDING MATERIALS AND CONCRETES
ON A BASIS OF HIGH MAGNESIUM ROCKS

Description
It is developed a new kind of composite binding substances and concretes on their basis, using high magnesium rocks – dunites. After hydromechanical activation dunites show high activity in the processes of hydration and solidifying of the Portland cement clinker. Technological operations involve hydromechanical processing of initial raw material, mixture with the Portland cement clinker and molding of products.

The scheme illustrates main stages of the proposed technology of concrete production on the basis of high magnesium rocks – dunites.

Technical appraisal and economic benefits
The developed technology allows to expand assortment of cheap building materials with increased operational properties. Use of available local raw materials allows to reduce concrete consumption by 40 % and to increase strength properties by 20 % in comparison with a standard sample.

Application areas
Building materials industry.
**Development stage**
The pilot batch of concrete samples on the basis of low-cementing materials with dunite was produced (with a volume of 25 m$^3$).

**Patent situation**
Patents granted in the Russian Federation.

**Commercial offers**
The license agreement, know-how transfer.

**Estimated cost**
2000 thousand roubles.

**Contacts**
Mognonov Dmitry Markovich, Deputy Director, Doctor of Chemistry
Baikal Institute of Nature Management, Siberian Branch of the Russian Academy of Sciences
6, Sakhyanova str., Ulan-Ude, 670047
Phone: (3012) 43-34-23
Fax: (3012) 43-42-59
E-mail: DMOG@binm.baikal.net
http://www.buryatia.ru/buryatia/science/binm/
http://bsc.buryatia.ru/bip/index.html