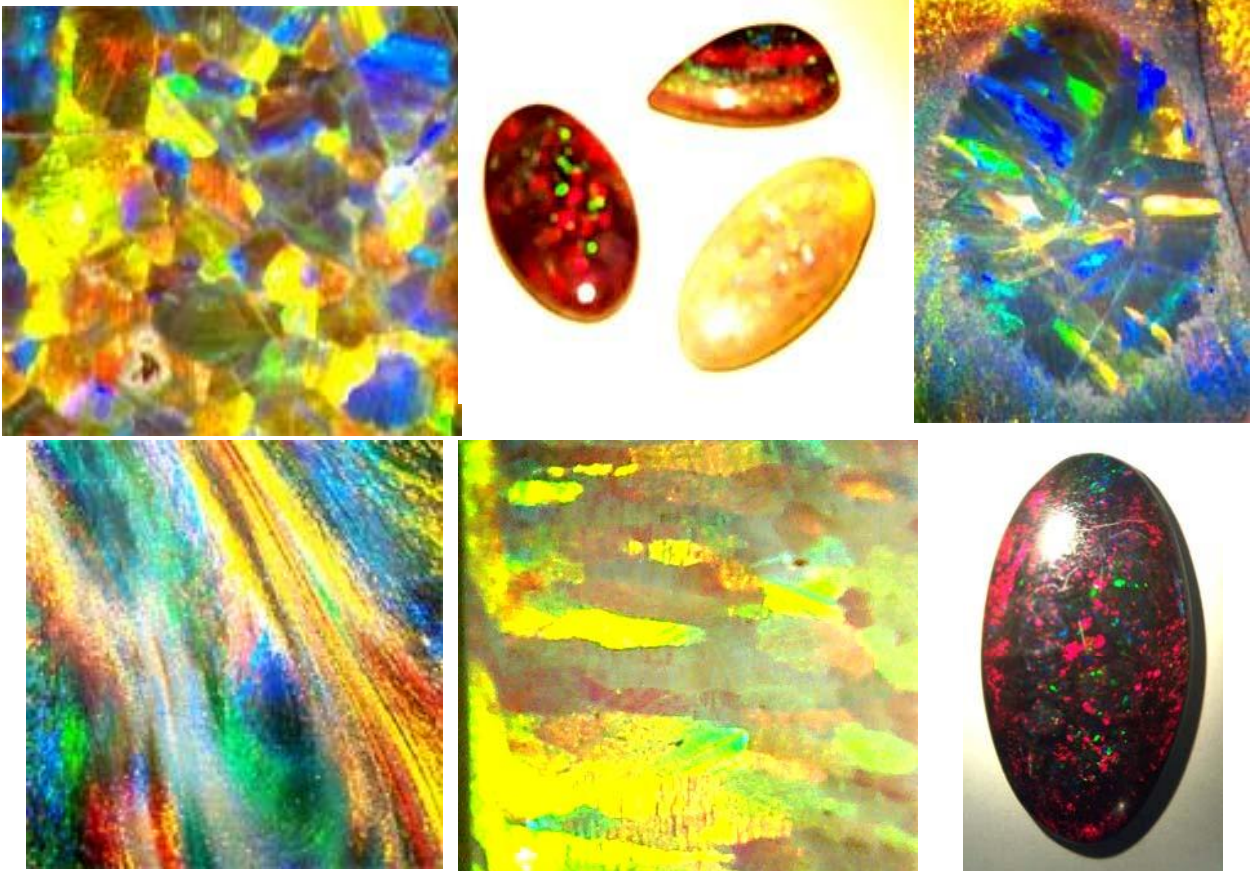


SYNTHETIC NOBLE OPAL

Description

Synthetic noble opal is a precious stone, physical and chemical analog of natural noble opal. The synthetic mineral has the following characteristics:

Chemistry	$\text{SiO}_2 \cdot n\text{H}_2\text{O}$
Bound water content	1.5 – 2%
Carbon content (in black opal)	up to 2 %
Moos hardness	5.5 – 6
Density	2.0 – 2.3 g/sm ³
Porosity	1.5 – 2.5%
Transparency	semitransparent, opaque



Color play and structure of noble opal.

Technical appraisal and economic benefits

Unlike other synthetic opals produced in Russia and abroad, the properties of the presented mineral are similar to those of natural (Australian) noble opal. The jewellery and trade name of the synthetic mineral is "Severny Opal".

Application areas

Raw material for jewellery.

Development stage

Minerals are synthesized in the Institute of Mineralogy and Petrography SB RAS (Novosibirsk).

Patent situation

No patent.

Commercial offers

- Marketing agreement
- Production and supply contracts

Estimated cost

1.5 –10 US\$ for 1g of rough stone depending on its grade (color play, size of color blocks, size of specimens, etc.).

Contacts

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