SOCIÉTÉ CHIMIQUE DE GENÈVE

Gemstones and Chemistry – Diamonds are not Forever

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Gemstones have been a source of fascination for many thousands of years, their beauty, durability and rarity making them valuable not only for jewellery but also for technological applications. The mineral properties governing these qualities will be explored in this lecture. The main focus will naturally be on diamond, the hardest material known to date. Nevertheless, from a chemist's point of view not even diamond lasts forever! The most valuable coloured gemstones belong to the corundum and the beryl groups of minerals. The origin of their colour will be discussed, taking ruby and emerald as examples. Furthermore, it will be explained why multicoloured tourmaline specimens are quite common and why tourmaline in Dutch is called "Aschentrekker". The last part of the lecture will be dedicated to the play-of-colour in precious opal and to photonic crystals in general.

Conférence présentée le : LUNDI 31 OCTOBRE 2005 À 17H30

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