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GGL-newsletter #2, Friday September 3, 2004

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#### Headlines:

- \*\*\* Lead-filled rubies: beware!
- \*\*\* GGL gemmologist on lecturing tour in Japan
- \*\*\* This month's IGC meeting in Wuhan, China, with contributions from GGL researchers
- \*\*\* Two important scientific publications on corundum in The Journal of Gemmology
- \*\*\* New shuttle services: London – Lucerne and Hongkong – Lucerne
- \*\*\* This autumn: Off-Premise-Testing in Hongkong and Bangkok

#### \*\*\* Clarity enhancement with lead-based filler in heat-treated rubies

Heat-treated rubies filled with a lead-glass substance, intended to improve the clarity, were submitted to the lab for testing. The results on the certificate stated indications of heating, as well as a complementary comment: additional clarity enhancement with a lead-glass.

#### \*\*\* GGL gemmologist on lecturing tour in Japan

2004 is the Year of the Emerald in Japan. With this in mind, Dr. Dietmar Schwarz was invited by the GAAJ (Gemmological Association of All Japan) to hold some talks/seminars on "Emeralds of the World – The world of Emerald" in Tokyo in June. Another seminar was organised in Tokyo by the Association of Gemmological Laboratories (AGL). Finally, Dietmar Schwarz gave a special lecture for the Conference of the Gemmological Society of Japan in Kyoto.

#### \*\*\* Two researchers from the GGL contribute to the annual meeting of the International Gemmological Conference (IGC) this month in Wuhan, China

George Bosshart presents recent advances in the distinction of natural and treated blue-to-green diamonds. By means of Raman photoluminescence, radiation-induced lattice damage is measured on the surface of the diamond and at consecutively increasing radiation penetration depth. These depth profiles allow the distinction of different types of radiation, such as the differentiation of natural alpha-particle bombardement from high-energy ions, electros and neutrons.

Dietmar Schwarz will talk on "Types of gem-corundum deposits – based on the lithology of the corundum host rocks". The presentation will focus on the characterisation and classification of primary deposits, which, depending on their geological setting, are divided in two groups: magmatic (syenites, basalts, mafic intrusives) and metamorphic (e.g. marbles for rubies). They are the most important host rocks for gem-quality rubies. Several case studies will be discussed to illustrate how the mineralogical-gemmological properties of rubies and sapphires reflect - directly or indirectly - the geological-geochemical situation of the growth environment.

#### \*\*\* Two important scientific publications on corundum in "The Journal of Gemmology"

Karl Schmetzer and Dietmar Schwarz have published a paper "The Causes of Colour in Untreated, Heat Treated and Diffusion Treated Orange and Pinkish-Orange Sapphires – a Review" in The Journal of Gemmology, 2004, 29, 3, 149-182. The authors discuss and summarise colours and the causes of colour in sapphires in the yellow to red colour range. An overview of the major types of colour centres in sapphire is given.

Dietmar Schwarz is co-author of the paper "Gem corundum deposits in Vietnam (The Journal of Gemmology, 2004, 29, 3, 129-147). This article briefly reviews the history and geology of the Luc Yen and Quy Chau mining areas in northern Vietnam. Besides the basalt-related deposits, other types of corundum occurrences are described, and the most notable features of rubies contained in marbles are presented.

#### \*\*\* New GGL shuttle destinations: London and Hongkong are now linked with Lucerne

In addition to the popular shuttle between New York and Lucerne, two new shuttle services were launched recently, again with our partner Malca-Amit: London is now connected to Lucerne by a 10-day round trip. Gemstones sent from Hongkong to Lucerne with the Gübelin shuttle are returned within 12 days. The Gübelin shuttle services offer attractive prices, uncompromising security and a minimum of formalities.

\*\*\* Off-Premise-Testing (OPT) in Hongkong and Bangkok

The GGL announces its next OPT services in Hongkong and Bangkok and invites you to take advantage of this opportunity to use its services in one of these locations. For exact contact details please refer to our website ([www.gubelinlab.com](http://www.gubelinlab.com)):

Hongkong: 19 - 26 Sep 2004, Grand Hyatt Hongkong, phone: +852 650 38597

Bangkok: 29 Nov - 10 Dec 2004, Jewelry Trade Center, 919/1 Silom Rd, 36<sup>th</sup> fl, phone: +66 1 937 2530

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