CURRICULUM VITAE 簡歷

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MSc	Master degree in Geology (1995)
FGA	Fellow of the Gemmological Association of Great Britain (1982)
FGAA	Fellow of the Gemmological Association of Australia (1992)
DGA	Gem Diamond Diploma of the Gemmological Association of Great Britain (1995)

Mr. Dominic Mok, the founder and current Principal of the Asian Gemmological Institute & Laboratory Limited, he is an Expert Gemmologist who possesses 36 years experience in the jewellery industry and he is the first gemmologist received the HOKLAS Approved Signatory in Hong Kong, accredited to ISO/IEC 17025 by the Hong Kong Accreditation Service (HKAS) of HKSAR Government. Asian Gemmological Institute & Laboratory Limited is the oldest professional gem testing laboratory established in Hong Kong since 1983.

Mr. Dominic Mok started teaching FGA gemmology diploma in 1983, In 1992, a graduate in Mr Mok' s Gemmology course was awarded the Tully Medal, the Gem-A' s highest award, which was presented together with the Anderson-Bank Prize. In 1997, another of Mok' s student earned the Bruton Medal, Gem-A' s highest award on Gem Diamond Diploma. In 2009, the first ever Gem-A's "Dominic Mok prize" again awarded to another student of Mr. Dominic Mok.

Mr Dominic Mok specializes in Fei Cui Jadeite Jade testing, Gem testing, Diamond testing, Diamond grading and application of advanced instruments which include: Energy Dispersive X-Ray Fluorescence Spectrometer (EDXRF), Fourier Transform Infrared spectrometer (FTIR), Laser Raman Spectrometer (LRS), Cathode-luminescence unit (CL), Ultraviolet-visible-near infrared Spectrometer (UV-VIS-NIR), DTC DiamondSure™ and Laser-induced Breakdown Spectrometer (LIBS).

莫偉基先生，亞洲寶石學院及鑑定所有限公司創辦人及現任院長，他是一位擁有 36 年珠寶業經驗的專家級珠寶鑑定師，他亦是香港第一位寶石鑑定師，榮獲香港特區政府香港認可處的 ISO 17025 認可鑑定證書簽署人。 亞洲寶石學院及鑑定所是香港成立歷史最悠久的專業高科技寶石鑑定所。

在 1992 年，莫偉基先生的一名寶石學文憑畢業生獲得世界第一名及杜雷獎章，該獎項是英國寶石學會的最高榮譽，該畢業生同時獲得安德森獎金。1997 年，莫先生的另一名畢業生獲得了保頓獎章，即是英國寶石學協會鑽石文憑試的世界第一名。莫先生的另一名畢業生在 2009 年考獲英國寶石學會新設的「莫偉基獎」即是英國寶石學會鑽石實習考試的世界第一名。

莫偉基先生專門從事翡翠鑑定、寶石鑑定、鑽石鑑定、鑽石分級、使用的高科技儀器鑑定包括：能量色散 X-光熒光光譜儀(EDXRF)、傅里葉轉換紅外光譜儀(FTIR)、激光拉曼光譜儀(LRS)、陰極發光儀(CL) 、紫外—可見光—近紅外光譜儀 (UV-VIS-NIR) 及激光誘發分解光譜儀(LIBS)。

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高科技寶石鑑定技術精要

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Brief Review of Advanced Gem Testing Technology

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Abstract:

In general, gem testing procedures in a laboratory are separated into conventional and advanced testing techniques. Gemstones such as Rubies, Sapphires, Diamonds, Emeralds, Jadeite (Fei Cui), Aquamarines, Pearls and many more may require further testing by advanced instrumentation in order to detect treatments or identify authentic nature. It is advantageous for gemmologists to be knowledgeable about these instruments and their uses for a variety of reasons. These range from commercial decisions to subject a stone to further testing to furthering their own scientific understanding about the latest developments in gem identification.

Each advanced instrument has specific capabilities. The EDXRF test is very useful for testing Pb content in lead-glass filled rubies. The Infrared Spectrometer helps in detecting resin impregnation in Jadeite as well as testing synthetic emeralds and other gems. The Laser Raman Spectrometer (LRS) is another powerful and reliable tool for identifying many gemstones, such as diamonds, garnets, etc. The LRS can also sometimes be used to examine a diamond set beneath a watch dial. The Cathode-luminescence unit (CL) can help gemmologists separate different types of diamonds as well as identify synthetics. The Ultraviolet-visible-near infrared Spectrometer is useful for testing the colour nature of Jadeite (Fei Cui) and diamonds, while the Laser-induced Breakdown Spectrometer (LIBS) helps to distinguish between natural orange-yellow sapphire and beryllium treated sapphire.

As advances in technology continue, these laboratory-based advanced instruments may well become more widely available to gemmologists, which would be beneficial for the industry.

Key Words: Advanced Gem Testing

摘要：

在一般情況下，寶石鑑定所的測試程序分為常規和高科技的檢測技術。有些寶石，例如：紅寶石、藍寶石、鑽石、祖母綠、翡翠硬玉、海藍寶石、珍珠等…可能需要使用高科技鑑定儀器作進一步測試，以檢測曾否曾受處理或者鑑定其真實性。

寶石學家能夠掌握這些高科技儀器的知識，與及它們可以應用得到的種種因由，將會大有好處的。這些包括某一些寶石需要再作進一步檢測的商業決定，也可以是自身對寶石鑑定最新發展的科學認知。

每種高科技儀器都有其特定的功能，例如：能量色散 X 光熒光光譜儀(EDXRF)可以有效地測試鉛玻璃充填紅寶石的含鉛量；紅外線光譜儀可以幫助檢測翡翠的樹脂充填處理以及測試合成祖母綠和其他寶石；激光拉曼光譜儀（LRS）是另一種威力強大和可靠的工具，用於識別許多寶石，如鑽石、石榴石等；LRS 有時也可以被用來檢查一個腕錶的錶面之下所鑲嵌的鑽石；陰極發光裝置（CL）可以幫助寶石學家將不同類型的鑽石分開，以及識別合成材料；紫外–可見–近紅外光譜儀測試翡翠硬玉及鑽石的顏色性質是有很用的；而激光誘發分解光譜儀（LIBS）有助於區分天然橙黃色藍寶石和鈹處理的藍寶石。

隨著技術進步不斷，這些在實驗室使用的高科技儀器可能被寶石學家更廣泛地使用，這將有利於整個行業。

關鍵詞：高科技寶石鑑定。