



INTRA-LABORATORY ALERT

Undisclosed submissions of colorless to near-colorless CVD synthetic diamonds to IGI

Dear Colleagues,

During the past weeks, a few hundreds of CVD synthetic diamonds were submitted to IGI laboratories in Antwerp and Mumbai, with the clear aim to have these man-made diamonds certified as natural diamonds.

In each case the synthetics had very similar characteristics and may therefore have had a common origin. IGI readily identified these as synthetic diamonds.

The purpose of this lab alert is to warn members of the gemological community, and urge them to be particularly vigilant.

The CVD synthetics submitted in unusually large numbers were as follows:

- Mostly F to J Color, Clarity VVS – VS. Internal characteristics were feathers, pinpoints, small dark crystals. The inclusions are strikingly similar to natural inclusions, hence, microscopic observation is insufficient to conclude.
- Sizes ranged from 0.30 ct to 0.70 ct.
- Polish, Symmetry and Cut were either “Excellent” or “Very Good”.
- Bruted or faceted girdles.
- They were all type IIa and were referred as such by DiamondSure.
- When tested using DiamondPlus all the synthetics gave a “refer CVD” result.
- When viewed in DiamondView they showed bluish green fluorescence and blue phosphorescence, with characteristic striations.
- The synthetics showed moderately strong photoluminescence from H3 and nitrogen-vacancy optical centres (zero-phonon lines at 503 nm and 575/637 nm respectively).
- They also exhibited photoluminescence at 737 nm that is attributed to silicon-vacancy centres.
- Absence of any laser inscription.

Due to the recent volumes of man-made stones submitted, IGI management decided to liaise and consult with the Belgian Federation of Diamond Bourses (BFDB), DTC Research, and the AWDC. Additionally, IGI decided to share detailed scientific information with other gemological laboratories around the world, as we now suspect that the volumes of colorless synthetic diamonds being released on the global markets have increased noticeably, and may perhaps already be prevalent throughout the diamond centres.

Trading in misrepresented or undisclosed products, whether inadvertently or not, could cause irreparable damage to the industry's reputation. Furthermore, such irresponsible practices could undermine the integrity of the diamond supply chain, damaging both trade and consumer confidence.

These recent events emphasize the importance of having ready access to methods for detecting synthetics. Parcels of stones containing unusually high proportions of type IIA's should be treated with particular caution.

In most cases we know of, the parties who submitted these stones to IGI purchased these undisclosed synthetics at prices that were equivalent to prices of natural diamonds.

CVD synthetic diamonds are undetectable when using only traditional diamantaires' tools such as loupes and microscopes. Therefore, gemologists' expertise is of paramount importance.

All 18 IGI labs worldwide have the ability to detect synthetic diamonds as well as all diamond treatments. Gemological laboratories like IGI are continuously being challenged due to rapidly evolving technologies. The laboratories' role in preventing undisclosed man-made materials from being traded as natural stones is therefore taking on an increasingly vital role.

If you have any queries, please do not hesitate to contact us.

Sincerely yours,

Mr. Herman Brauner - IGI
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About IGI

IGI, established in 1975, is the world's largest independent certification body for diamonds, precious gemstones and jewelry, with offices and laboratories in 19 locations around the globe, namely in Antwerp, New York, Hong Kong, Mumbai, Bangkok, Tokyo, Dubai, Los Angeles, Toronto, Tel Aviv, Surat, Kolkata, New Delhi, Chennai, Thrissur, MIDC, Ahmedabad, Shanghai and Cavalese. IGI is an ISO accredited worldwide organization.

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