



Gemmological
Research
Industries Inc.



Practical Intense Seminar: Screening & ID of Diamonds

November 25, 2019 (Monday) at *DMCC, Jumeirah Lakes Towers, Dubai, UAE*

Instructor: Branko Deljanin, B.Sc., GG, FGA, DUG (CGL-GRS lab/GRI, Canada)

Morning (9:00 AM to 12:45 PM): **ID of Colourless Diamonds (Natural, Treated, and Lab-grown)**

- **Colourless Natural diamonds:** sources, characteristics and identification
- **Methods of growing** HPHT and CVD diamonds
- **Inclusions** in Natural and Synthetic diamonds
- **UV lamp** – reaction of different diamonds, loose/mounted with “PL / Jewellery inspectors”)
- **CPF (Cross Polarized Filters) method** and to screen and ID diamond’s origin
- **Clarity and Color Enhancements – unstable** (Fracture Filling and coating),
- **Clarity Enhancements – stable** (Traditional Lasering, KM Laser drilling)
- **Post treatments of CVD-grown** colorless diamonds (by HPHT press)
- **ID of HPHT-enhanced diamonds** using advanced instruments
- **ID of mounted synthetic diamonds** with EXA instrument and screening instruments
- Problems and solution in identification of **melee natural and synthetic diamonds**

PRACTICAL: Samples of Ia, IIa, IIb, Ib diamonds (natural and synthetic origin) are tested with UV lamp (“inspectors”), Gempen, microscopes and Polarioscope, Alosa Diamond Inspector, EXA.

Afternoon (1:45 PM to 5:30 PM): **ID of Coloured Diamonds (Natural, Treated, and Lab-grown)**

- **YELLOW** and **ORANGE diamonds:** sources/producers, characteristics and ID
- **GREEN** and **CHAMELEON diamonds:** source/producers, characteristics and ID
- **BLUE** and **GRAY diamonds:** sources/producers, characteristics and ID
- **PINK** and **RED diamonds:** sources/producers, characteristics and ID
- **Use of Standard Instruments** to separate Coloured Natural and Synthetic Diamonds
- **Color Enhancements – stable** (irradiation, annealing, HPHT, multistep treatments)
- **Post treatments of HPHT-grown and CVD-grown diamonds** (irradiation and HPHT)
- **Identification methods for treated diamonds** with advanced instruments at labs
- **Grading and Certification** of coloured diamonds at gem laboratories

PRACTICAL: Coloured Diamonds are tested with portable polarioscope, Gempen, PL Inspector, microscope and handheld spectroscope in screening and ID with **EXA machine**.

Cost: US 410/AED 1,500 full day (\$205/AED 750 per half day, please indicate which one)

Please pay by credit card to www.brankogems.com or Ruma.Warange@gemscience.net at **GSI Dubai**.