



Gemmological  
Research  
Industries Inc.



## DAY 1: Colourless Diamonds

### Identifying of Natural, Treated and Synthetic Diamonds with Standard and Advanced Instruments

Instructor: **Branko Deljanin**, B.Sc., GG, DGA, FGA, DUG,  
*Gemmological Research Industries Inc, Canada*

**October 9, 2020 (Friday) at EGM, 460 rue Sainte Catherine Ouest, suite 913, Montréal**

#### 9am-12.30pm: IDENTIFICATION of NATURAL and SYNTHETIC DIAMONDS

- **Types of diamonds** based on nitrogen and boron content
- **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 types of diamonds under LW and SW UV light (“PL inspector”)
- **CPF (Cross Polarized Filters) method** and instrumentation to screen and ID diamond’s origin

**PRACTICAL WORKSHOP: Samples of Ia, IIa, IIb, Ib diamonds (natural synthetic origin)** are tested with microscopes, mini UV lamp (“PL inspector”) and Mini Polariscopes with Portable light

#### 1.30-5.00pm: SCREENING for TREATMENTS of NATURAL and SYNTHETIC DIAMONDS

- **Clarity and Color Enhancements - unstable** (Fracture Filling and coating),
- **Clarity Enhancements - stable** (Traditional Lasering, KM Laser drilling)
- **Testing and screening methods for treated diamonds** with standard instruments
- **Post treatments of CVD-grown colorless diamonds** (HPHT)
- **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 WORKSHOP: Colorless Diamonds** are tested with microscopes, mini UV lamps, CPF (portable polariscopes) and portable spectrometer (**EXA**) for natural, treated or synthetic origin

- **Portable “Synthetic Diamond ID Kit”** (polariscopes, lights, PL inspector), **EXA** will be available
- **Certificate of completion** will be issued to all participants

**Cost: US\$390 (CDN\$500)**

**US\$350 (CDN\$450)** if taken with 2<sup>nd</sup> day on Coloured Diamonds, total US \$700 (CDN\$900)

Please pay in **US\$** at [www.brankogems.com/shop/product-category/workshops](http://www.brankogems.com/shop/product-category/workshops) or contact [info@brankogems.com](mailto:info@brankogems.com) or in **CDN\$** contact EGM 1 (514) 844-0024 or [mh.corbin@egmtl.com](mailto:mh.corbin@egmtl.com)