



Gemmological
Research
Industries Inc.



DAY 1: Coloured Diamonds

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

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November 23, 2019 (Saturday) at DMCC, Jumeirah Lakes Towers, Dubai, UAE

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

- **BROWN diamonds:** sources/producers, characteristics and identification
- **YELLOW and ORANGE diamonds:** sources/producers, characteristics, and identification
- **GREEN and CHAMELEON diamonds:** source/producers, characteristics and identification
- **BLUE diamonds:** sources/producers, characteristics and identification
- **PINK/RED diamonds:** sources/producers, characteristics and identification
- **Use of Synthetic Diamond ID Kit** to separate Colored Natural and Synthetic Diamonds

PRACTICAL: **Microscopy** –inclusions for HPHT and CVD synthetics, **UV lamp** – colours of fluorescence/phosphorescence and **Cross Polarized Filters** (CPF) patterns for synthetic origin.

1.30-5.00pm: **IDENTIFICATION of TREATED NATURAL and SYNTHETIC DIAMONDS**

- **Clarity and Color Enhancements - unstable** (fracture filling and coating),
- **Clarity Enhancements - stable** (traditional lasering, KM Laser drilling)
- **Processes for colour treatments** of diamonds, natural and synthetic
- **Color Enhancements - stable** (irradiation, annealing, HPHT, multistep treatments)
- **Post treatments of HPHT-grown and CVD-grown diamonds** (irradiation)
- **Identification methods for treated diamonds** with advanced instruments at labs
- **Grading of Colored diamonds** with Munsell chips, masters using GIA and CGL-GRS system
- **Certification** of treated and synthetic diamonds at gem laboratories

PRACTICAL: **Coloured Diamonds** are tested with microscopes, mini UV lamps (PL inspectors), Gempen, portable polariscopes, Jewellery Inspectors and portable spectrometer (**EXA**) for origin

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

Cost: US\$395/AED 1,450 Please pay by credit card to www.brankogems.com or contact **GSI Dubai**