

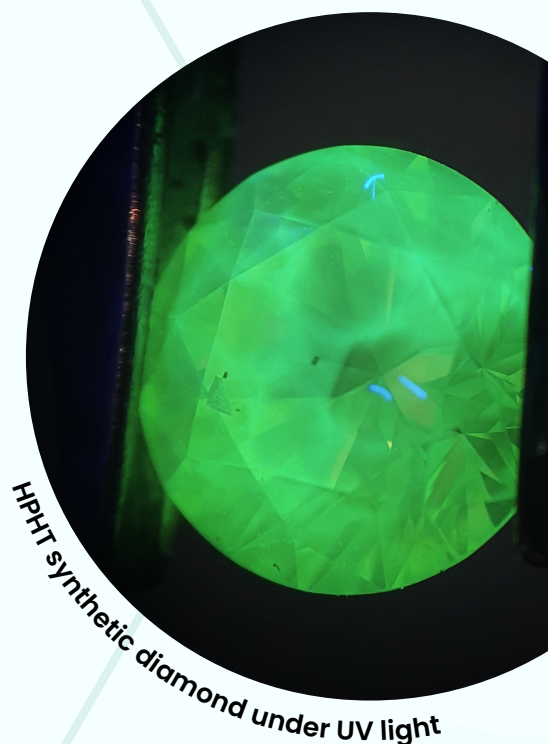
SGA STUDENT CHAPTER PRAGUE INVITES YOU TO A LECTURE:

Diamond

a mineral of superlatives

June 2nd – 3rd 2023

9:00 – 17:00



HPHT synthetic diamond under UV light

Venue:

ALBERTOV 6, PRAGUE
FACULTY OF SCIENCE
CHARLES UNIVERSITY
CZECH REPUBLIC

ENTRY FEE:

SGA members: 5 € (125 Kč)
Others: 12 € (300 Kč)

REGISTRATION AND PAYMENT DEADLINE:

MAY 14th 2023

E-MAIL REGISTRATION:

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DR. TOM STEPHAN

Dr. Tom Stephan is the Vice Director of the German Gemmological Association, located in Idar-Oberstein, the gemstone capital of Europe. He studied geosciences at Johannes Gutenberg University in Mainz, Germany, and wrote his Master's thesis on rubies from East Africa. For his Ph.D. thesis, he worked on the mathematical description (spectral fitting) of UV/Vis/NIR spectra to calculate the color of rubies and emeralds. Currently, at the German Gemmological Association, he works as an instructor and research gemmologist.

STEFAN MÜLLER, M.Sc.

Stefan Müller is a research gemologist at the DSEF German Gem Lab, which is Germany's leading gemological laboratory that issues gemstone reports. He studied geosciences at Johannes Gutenberg University in Mainz, Germany, and wrote his Master's thesis on sapphires from different locations. Currently, he is working on his Ph.D. thesis on the high-pressure-high-temperature treatment of diamonds.

INTRODUCTION

Diamond is a remarkable mineral due to its chemical and structural properties. It is composed of pure carbon with a cubic structure and is known for its extreme hardness, high thermal conductivity, and chemical resistance. Diamonds are extensively used in industry and account for around 80% of sales in the gemstone market. Identifying imitations and synthetic diamonds, detecting treatments, and determining quality using the 4Cs (Clarity, Color, Cut, and Carat weight) are all critical considerations in the gemstone industry.



FIRST DAY:

On the first day, the lectures will focus on natural diamonds, including their age and formation, the geological settings of their occurrences, and the history of diamond mining. In the second half of the day, we will discuss the chemical, physical, and structural characteristics of diamonds, and compare them to their synthetic counterparts. The focus will be on the applications of both natural and synthetic diamonds as technical minerals.



SECOND DAY:

The second day will focus on the gemological investigation of diamonds, including their quality characteristics and identifying imitations, synthetic diamonds, and treated diamonds. In the afternoon, participants can study various samples in practical workshops on their own.

Under the auspices of:

