

SYNTHETIC MOISSANITE WITH HEXAGONAL NEGATIVE CAVITIES

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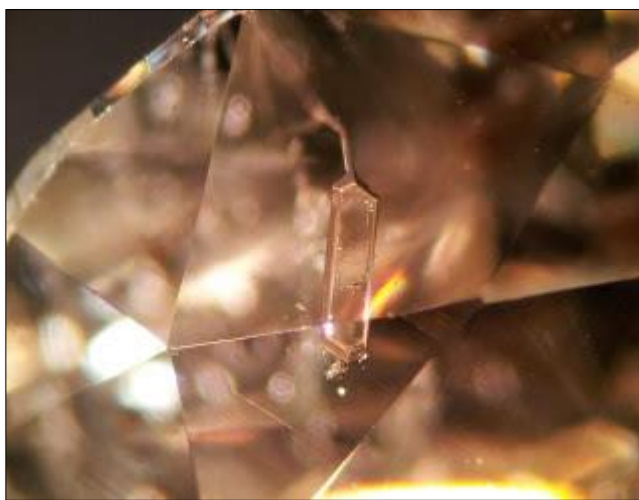
Synthetic Moissanite (Silicon Carbide) a well-known substitute of Diamond. But easily differentiable from Diamond with its strong doubling and fine sub-parallel stringers oriented parallel to its optic axis direction. Other inclusion which is not usually found in Moissanites are Gas Bubbles and hexagonal negative cavities/crystals.

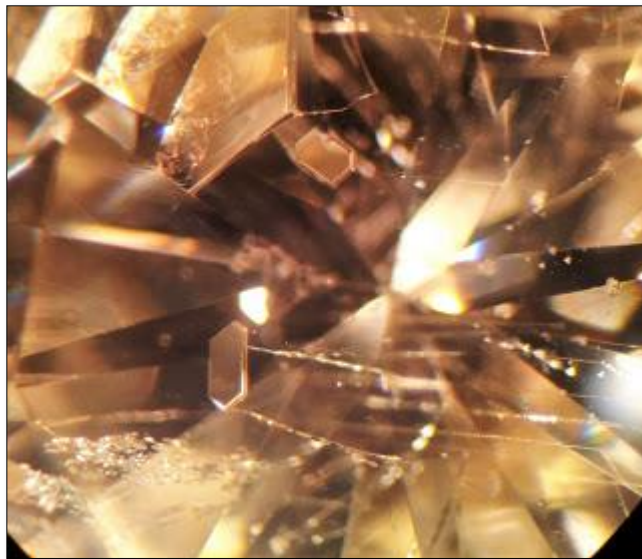
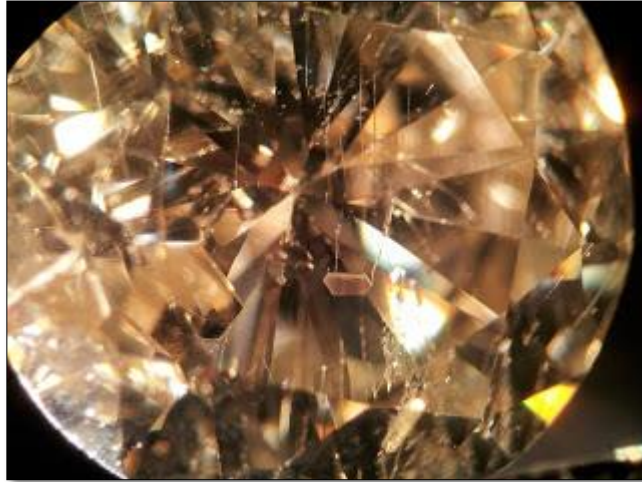


Hexagonal negative cavity in Synthetic Moissanite with extended hollow tube.

Synthetic Moissanite is produced with Sublimation Process in which the silicon carbide vaporizes and then recrystallizes without ever passing through liquid stage.

Indian Gemological Institute - Gem Testing Laboratory, Delhi received two Synthetic Moissanite for routine testing, one of which showed well carved Gas Bubbles with extended hollow tubes and Hexagonal Negative cavities/ crystals with extended hollow tubes.





Gas bubbles with extended hollow tubes in Synthetic Moissanite

Moissanites are usually cut with its optic axis direction perpendicular to its table, to avoid the visibility of its doubling (note: Moissanites are not always cut with its optic axis direction perpendicular to stone's table, moissanites with its optic axis direction inclined to the table have also been seen). Although doubling is clearly visible if stone is seen inclined from its optic axis direction i.e. from its bezel facets or upper pavilion facets. White stringers or hollow tubes can be seen parallel to the optic axis direction or perpendicular to its table, if stone is cut with its optic axis direction perpendicular to its table.

Properties of Synthetic Moissanite:

Refractive Index: 2.654 - 2.967; 0.313
SG: 3.22

Crystal System: Hexagonal System