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| Amethyst |
| Amethyst violet  A moderate violet natural amethyst spectrum obtained through 10 mm thick plate along an arbitrary direction. |
|  | RGB VALUESR: 131G: 100B: 134 | amethyst |
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| Corundum |
| Corundum Red - RubyA red synthetic corundum spectrum obtained through 10 mm thick plate along an arbitrary direction. |
|  | RGB VALUESR: 093G: 000B: 021 | Corundum_Red_direction1 |
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| Corundum Red - RubySpectrum of the same red material obtained through the 11 mm thick plate with another arbitrary direction. Red colour of that stone is related with Cr3+ adsorption features. |
|  | RGB VALUESR: 123G: 000B: 046 | Corundum_Red_direction2 |
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| Corundum Orange Red - RubyAn orange-red synthetic corundum spectrum obtained through 10 mm thick plate along an arbitrary direction. |
|  | RGB VALUESR: 134G: 026B: 000 | Corundum_OrRed_direction1 |
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| Corundum Orange Red - RubySpectrum of the same material obtained through the 11.5 mm thick plate along another direction. Cr3+ features also present in spectrum of this stone, but the concentration of Cr is much lower. |
|  | RGB VALUESR: 188G: 086B: 001 | Corundum_OrRed_direction2 |
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| Corundum Orange - RubyAn orange synthetic corundum spectrum obtained through 9 mm thick plate along an arbitrary direction. |
|  | RGB VALUESR: 205G: 122B: 000 | Corundum_Or_direction1 |
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| Corundum Orange - RubySpectrum of the same material obtained through the 10 mm thick plate along another direction. No Cr3+ related features present. Colour origin of that stone is undefined. |
|  | RGB VALUESR: 220G: 148B: 001 | Corundum_Or_direction2 |
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| Cubic Zirconium |
| Cubic Zirconium GreenA green cubic zirconium (CZ) spectrum obtained through 18 mm thick plate. Colour of that stone is related with REE adsorption. |
|  | RGB VALUESR: 180G: 182B: 059 | CZ_Green |
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| Cubic Zirconium RedA red CZ spectrum obtained through 20 mm thick plate. |
|  | RGB VALUESR: 188G: 000B: 000 | CZ_Red |
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| Cubic Zirconium VioletA violet CZ spectrum obtained through 22 mm thick plate. Colour of that stone is related with REE adsorption. |
|  | RGB VALUESR: 138G: 106B: 145 | CZ_Violet |
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| Cubic Zirconium Yellow  A yellow cubic zirconium (CZ) spectrum obtained through 4 mm thick plate. Colour of that stone is related with REE adsorption. |
|  | RGB VALUESR: 202G: 172B: 000 | CZ_Yellow |
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| Diamond |
| Diamond - BlackA dark orange-brown natural diamond (untreated) spectrum obtained through 3.6 mm thick plate. This diamond is Ia type and it can be assumed that its colour is connected with dislocations. |
|  | RGB VALUESR: 016G: 000B: 000 | Diamond_Dark_OrangeBrown |
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| Diamond Fancy Deep Orange Brown - ChampaignA fancy deep orange-brown natural diamond (untreated) "Diamond\_Fancy\_Deep\_Orange\_ Brown" spectrum obtained through 4.15 mm thick plate. This diamond is Ia type and it is assumed that its colour is also connected with dislocations. |
|  | RGB VALUESR: 152G: 079B: 000 | Diamond_Fancy_DeepOrBr |
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| Diamond Fancy Yellow – Canary YellowA fancy yellow natural diamond (untreated) spectrum obtained through 4 mm thick plate. This diamond is natural Ib type and its colour is related with C-centres absorption. |
|  | RGB VALUESR: 210G: 193B: 101 | Diamond_Fancy_Yellow |
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| Diamond Fancy Yellow LemonA fancy greenish-yellow natural diamond (untreated) spectrum obtained through 6.76 mm thick plate. Colour of that stone is related with two broad bands on 478 and 560 nm. |
|  | RGB VALUESR: 191G: 175B: 115 | Diamond_Fancy_YellowLemon |
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| Diamond Yellow A light yellow natural diamond spectrum obtained through 3.5 mm thick plate along a triad axis direction. This diamond is Ia type and its colour is related with N3-N2 centres. |
|  | RGB VALUESR: 194G: 193B: 111 | Diamond_Yellow |
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| Sapphire |
| Sapphire A blue natural sapphire "Sapphire" spectrum obtained from Mineral Spectroscopy Server visible spectra database\* and then adjusted. Sapphire colour is related with Ti-Fe presence. |
|  | RGB VALUESR: 000G: 008B: 063 | Sapphire |
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| Emerald |
| Emerald A green natural emerald spectrum is one of DiamCalc standard spectra. Emerald colour is related with Cr presence. |
|  | RGB VALUESR: 000G: 161B: 112 | Emerald |
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| Synthetic diamond |
| Yellow synthetic diamondA yellow synthetic diamond spectrum obtained through 5 mm thick plate. This diamond is Ib type and its colour is related with C-centres absorption. |
|  | RGB VALUESR: 202G: 148B: 000 | Synthetic_diamond_Yellow |
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| Topaz |
| Topaz parallel C-axis directionA blue irradiated topaz "Topaz\_paralC" spectrum obtained through 13 mm thick plate along parallel C-axis |
|  | RGB VALUESR: 166G: 191B: 195 | Topaz_paralC |
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| Topaz perpendicular C-axis directionSpectrum of the same material obtained through the 11.5 mm thick plate in the perpendicular C-axis direction. |
|  | RGB VALUESR: 183G: 197B: 200 | Topaz_perpC |
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| Quartz |
| Quartz through the zone with weaker colourA yellow colour-treated natural quartz spectrum obtained through 12 mm thick plate perpendicular C-axis of the stone recorder through the zone with weaker colour. |
|  | RGB VALUESR: 204G: 194B: 158 | Qtz_Yellow_weak_perpC |
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| Quartz through the zone with more yellow colourSpectrum of the same material obtained through the same plate but through the zone with more yellow colour. Colour of that stone is related with Fe3+ presence. |
|  | RGB VALUESR: 214G: 195B: 137 | Qtz_Yellow_intence_perpC |
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| **MY CUSTOM GEMS***Gem Name*Description…… |
|  | RGB VALUESR: 057G: 040B: 100 | Qtz_Yellow_intence_perpC |