

Fosforeskující whewellit z Mostecké pánve (Česká republika)

Phosphorescent whewellite from the Most Basin, Czech Republic

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Abstract

Both yellow and white whewellite from the Most Basin (brown coal basin of Neogene age in the NW of Czech Republic) is strongly fluorescent and phosphorescent in long-wave ultraviolet light. Whewellite crystals display in UVA light intense green-yellow fluorescence (wavelength 366 nm) and subsequent phosphorescence (green-yellow glow) which is observable at least 15 - 20 seconds after irradiation. Less pronounced phosphorescence is observable also after the irradiation by UVC light (wavelength 254 nm) and even after the illumination by common artificial light. Whewellite from the Kladno Coal Basin (also Czech Republic) is not luminescent. Chemical composition and lattice parameters of both luminescent whewellite from the Most Basin and non-luminescent from the Kladno Basin are nearly identical.

Key words: whewellite, fluorescence, phosphorescence, Bílina, Most Basin, Czech Republic