A Novel Method of Capturing Fluorescence in Clinical Dentistry

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Abstract

A fully integrated esthetic restoration should emit levels of fluorescence similar to that of natural dentition. Also, dental practitioners should be able to monitor this property in their routine clinical setting. The aim of this study was to investigate the efficacy of a removable filter for a macro flash illumination set-up required for the digital photographic recording of the fluorescence emission of human teeth and dental restorations.

Reference


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Fig 1. Contemporary fluorescence capturing set-up, including DSLR camera, macro lens, and twin light macro flash along with removable filter for UV flash illumination.
Fig 2. Traditional set-up included camera DSLR body, macro lens, supporting system, remote control, and continuous illumination source. Patient was positioned horizontally.

Fig 3. Novel set-up included camera DSLR body, macro lens, flash illumination source, and UV 365-nm filter. Neither patients’ position nor operatory lighting conditions were modified for the shooting.

Fig 4. Results obtained with the traditional set-up.
Fig 5. Results obtained with the novel set-up.