myOWIS

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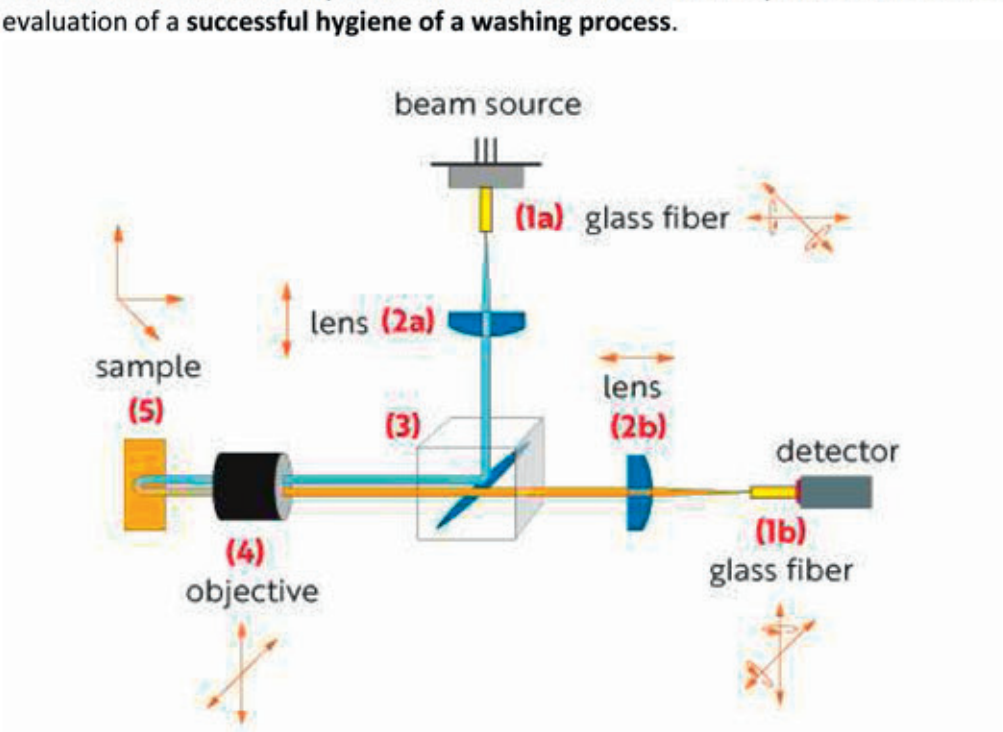
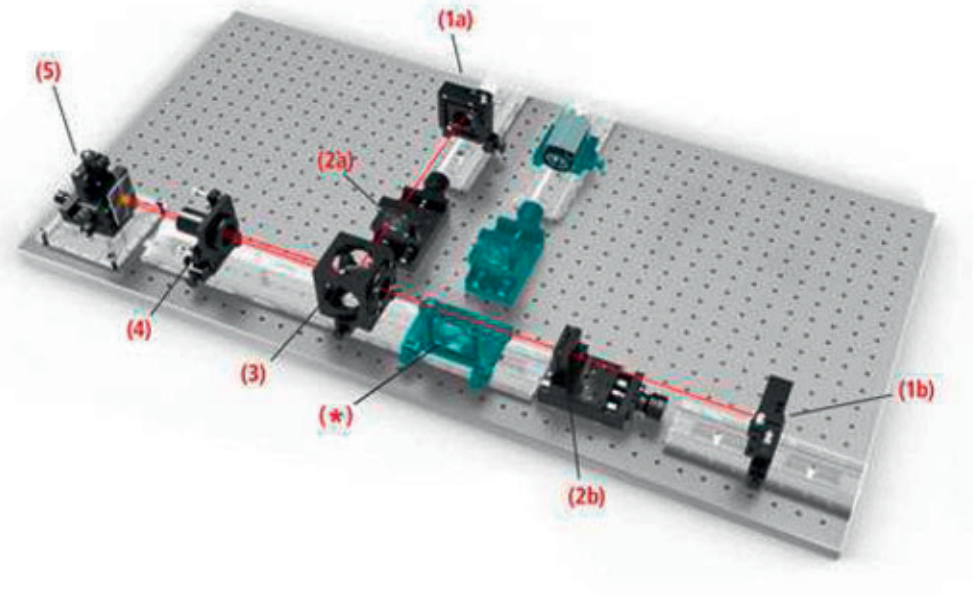
Application: successful hygiene in washing process

We hope you had a good start into the new year 2022! In January, in addition to the already featured product area of **beam handling systems**, we would like to present to you our product area of **optical components** based on a solid-phase fluorospectrometer.

The **fluorescence spectroscopy** uses fluorescence phenomena for the **analysis of substances**. It differs from several other spectroscopies as it measures the emission instead of the absorption of fluorescent radiation. The **research institute „wfk – Cleaning Technology Institute e.V."** in Krefeld, Germany, for example examines dirt on fabric surfaces in order to identify **fluorescent-marked bacteria**. This procedure is used for the evaluation of a **successful hygiene of a washing process**.



For this sensitive measuring method, the **highly precise guidance of the measuring beam** is essential. In order to keep the **beam height steady** on one level, the OWIS system consisting of **rails and slides** is used in the fluoro spectrometer. The light is **coupled** out of the beam source through the glass fibers (1a) **into the beam path**. The beam is **collimated** (2a) and **redirected** to the sample (3). A microscope objective (4) adjusts the appropriate **beam diameter** in order to **scan the fabric sample three-dimensionally** (5). For the electronic measurement of the wavelengths, the fluorescent light emitted from the surface of the substance is **coupled into the optical fiber of the detector** (1b). The linear stages (2a+2b) are used to precisely adjust the **position of the two lenses along the optical axis** in order to achieve the **maximum signal intensity**.



(1) fiber positioner FAPO 65

(2) optic holder on linear stage LT 60

(3) beam splitter in cube W 65

(4) transmitting mount TRANS 65L

(5) 3x translation stage VT 45N

(*) Alternatively, the fabric surface can also be monitored by a camera.

On our website you are welcome to download the PDF of the application report.

What can we do for your lasers?

Best regards from Staufen

Your OWIS team

Do you have any questions? Contact us:

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