DETERMINATION OF ANTIVIRAL ACTIVITY OF UV-C IRRADIATION AGAINST SARS-CoV-2

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ANTIVIRAL ACTIVITY RESULTS

Table 1 *- Number of infectious virus particles in PFUs recovered after the decontamination cycle, together with the antiviral activity values (M_v) with corresponding percentages of reduction ($R_{\%}$) of the tested materials.*

	Input PFU	Recovered PFU	M_V	$R_{\%}$
keys control	80000	71333	0.05	10.83
keys UV-C		**< 33**	**> 3.33**	**> 99.95**
masks control		64667	0.09	19.17
masks UV-C		**< 33**	**> 3.33**	**> 99.97**

Conclusion:

The calculated antiviral activity values for the treatment in the decontamination box showed an excellent antiviral effect for these two types of sample. After one decontamination cycle, the viral load was reduced by more than 3.33 logs, which constitutes a reduction of more than 99.95 %. As no viral growth was detected after the UV-C treatment cycle, the detection limit of this method was assumed and results therefore are represented with the symbols < and >. Please note that in this case the actual antiviral activity value can be higher, but the viral titer reduction was limited by the experimental conditions.