



**Antiviral Evaluation of APJet Plasma System**

**Summary**

We tested APJet’s plasma system for its antiviral properties against the OC43 human coronavirus. Stainless steel discs (20mm) were inoculated with OC43 and exposed to plasma for 0, 30, 60, or 90 seconds. Residual, active virus was recovered in SCDLP buffer and detected by incubating RD cells for 48 hrs. RD cells were then fixed with a 1:1 acetone:methanol mixture (to permeabilize cells) and stain with a monoclonal antibody to detect OC43 viral particles. The resultant foci are then enumerated and reported as Focus Forming Units (FFU).

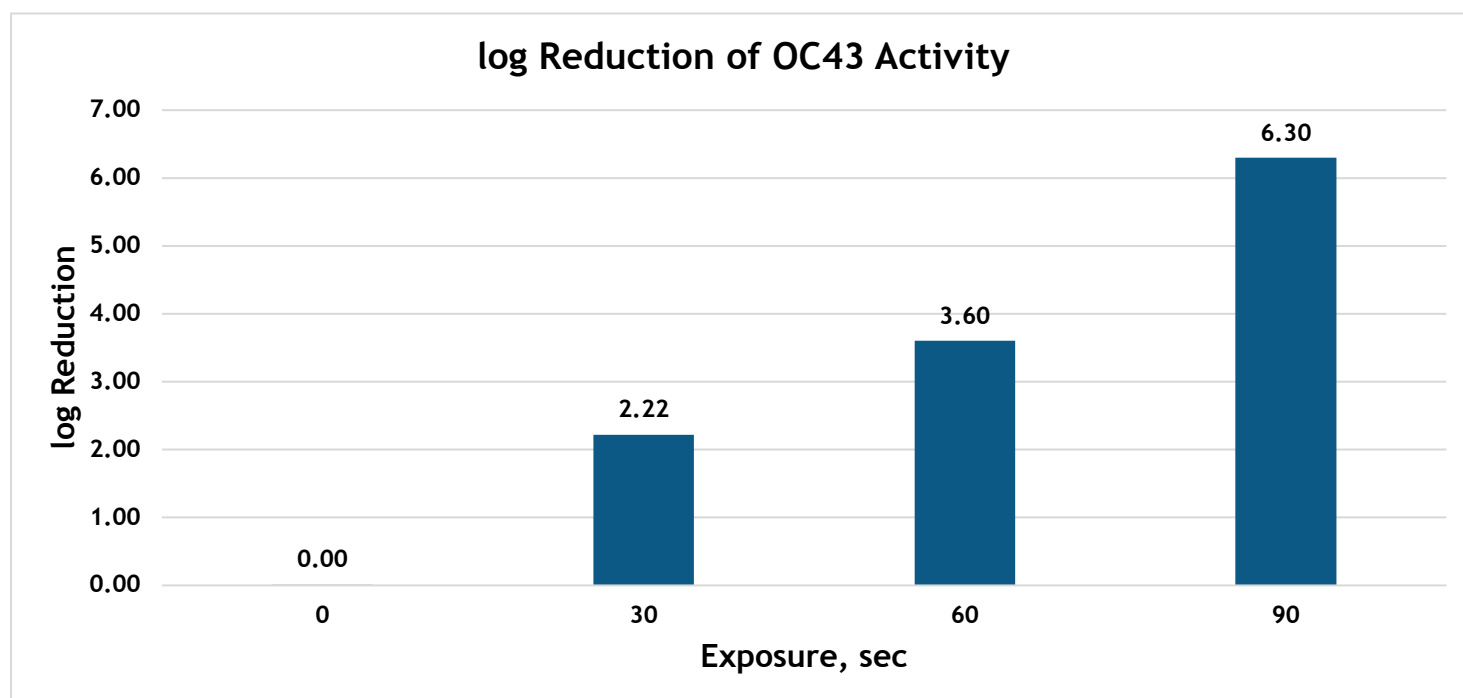
**Test Method Details**

Test Method	Modified ASTM E2197
Test Organism	OC43 human coronavirus
Test Solution	Eagles Modified Medium with 2% Fetal Bovine Serum
Test Samples	20 mm stainless steel discs inoculated with OC43 beta coronavirus
Recovery Solution	Modified SCDLP Buffer
Method for Measuring Viral Activity	Dilution Plate Method onto RD cells, viral activity was detected by the presence of viral particles (foci) using a monoclonal antibody specific for OC43. Foci were then counted giving Foci Forming Units (FFU).

**Results**

<b>Modified ISO 18184: Determination of Antiviral Activity of Textile Products</b>	
Number of Replicate Experiments	1
Average Concentration of Inoculum	1.98+6 FFU/ml = 6.30 log FFU/ml

Exposure, sec	Average FFU	Log FFU	Log Reduction	% Reduction
0	1975000	6.30	0.00	0.00
30	12000	4.08	2.22	99.39
60	500	2.70	3.60	99.97
90	0	NA	6.30	100.00



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