
ZEN Graphene Solutions: Silver Nanoparticle-doped Graphene Oxide's Virucidal Properties

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ZEN Graphene Solutions Ltd. (ZEN) is pleased to announce it has received a report on the first batch of samples that were submitted to Western University's ImPaKT Facility Biosafety Level 3 lab (UWO) for virucidal efficacy testing. The batch-testing program's focus is to confirm and measure virucidal potency of the graphene oxide-based silver nanoparticle composite inks that were produced at ZEN's Guelph lab.

The company prepared five different formulations with varying oxygen contents and silver nanoparticle loadings for testing at a concentration of 4g/L. All five variations with concentrations diluted to as low as 0.16g/L reduced viral replication. These formulations slowed growth of the COVID-19 Coronavirus in a media designed to replicate human cells.

The June 10 [Western University ImPaKT Facility](#) report included the following results: "all compounds that were undiluted, 1:5, and 1:25 dilutions had reduced viral replication (of the SARS-CoV-2 (COVID-19) coronavirus) compared to the no-drug control, potentially reflecting a 25-50% reduction in virus replication."

Given the indications in yesterday's UWO report, ZEN's R&D team has started preparing new formulations designed for virucidal testing directly on fabric applications such as masks. These formulations will be delivered in the coming days and management has asked the UWO team to expedite testing given the immediate global need for enhanced personal protective equipment with verified virucidal capability.

Francis Dubé, ZEN CEO commented, "ZEN is pleased with the initial results which confirm that the silver nanoparticle-doped graphene oxide can play a role in the fight against the COVID-19 Pandemic. ZEN is moving quickly to prove, optimize, develop and deliver products that could play a role in the pandemic.

The opportunity to combat COVID-19 with clinically proven graphene science motivates the

entire ZEN team. These new formulations are an exciting step for us in bringing graphene materials to personal protective equipment.”

Read the [original article](#) on ZEN Graphene Solutions.