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TEXTILE TREATMENTS WITH A NEW MOSQUITO REPELLENTS BASED ON THE NATURAL VIBROACTIVATED ZEOLITES AND IMORTELLA OIL

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Following the situation with the ZIKA virus in Central Europe, the Croatian Institute of Public Health and the public in Croatia were alerted to enchance mosquito control.

TTF textile chemical group recently started to work on textiles with mosquito repellents based on the natural vibroactivated zaolites, Immortelle oil and cyclodextrine, compared to Ethyl butylacetylaminopropionate (IR3535, Merck), the most applied and successful synthetic mousquito repellent.

For this purpose the starting material was cotton fabric as the most important textile in use during the summer time. Scoured and bleached cotton was treated with a vibroactivated zaolites in the laboratory scale, by using Pad-roll-dry system and spraying method, too. Beside this, in all applied impregnation baths, the original Immortelle oil was added. This paper will discuss the repellents efficacy, the changes in textile structure parameters, the amount of adsorbed agents and its uniformity, using gravimetric method, fluorescence, SEM and FTIR methods.

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