Environmental Engineering and Management Journal *July/August 2009, Vol.8, No.4, 733-736*
http://omicron.ch.tuiasi.ro/EEMJ/

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NEW MATERIALS FOR WATER OZONIZATION

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Abstract

Application of ozone is known to yield favorable results in purification of phosphate plant water from elemental phosphorus, in treatment of water of alkali aluminate solutions of aluminum plants, in decontamination of cyanide-containing waste water of enrichment plants, and so on. It has been proved that halogen-containing compounds, most of which have mutagenic properties, and some of which are carcinogenic to humans, are formed when water is treated with chlorine. Conclusions made in a majority of studies into toxicity of ozonized natural water suggest that ozone does not increase or produce toxic effect. In some studies toxic effect is noted and attributed to ozone dose and treatment time. Increase in ozone doses reduces mutagenic activity of the treated water. In this context, of special importance is to look for and scientifically substantiate new technological solutions that would make possible more thorough purification of drinking and waste waters.

Key words: materials, ortonitrophenol, water ozonization

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