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(54) Title: A COMPOSITION FOR ENHANCED BIOCIDAL ACTIVITY AND WATER PURIFICATION DEVICE BASED ON THE SAME

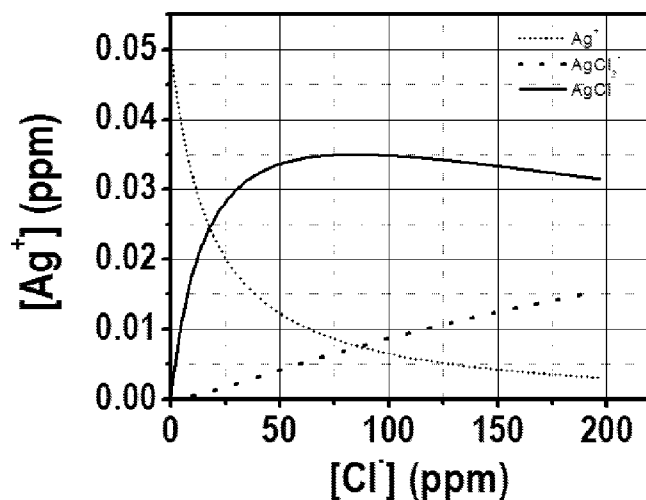


FIG. 2

(57) Abstract: A composition for the purification of water and the device using the composition has been described. The composition comprises a transition metal ion M^{n+} releasing compound along with an CO_3^{2-} releasing compound or an SiO_3^{2-} releasing compound. The composition M^{n+}/CO_3^{2-} or M^{n+}/SiO_3^{2-} is provided to disinfect various interfering species usually found in water. Utility of the composition over traditionally used Ag^+ for antimicrobial activity has also been demonstrated based on a number aspects such as reduction in contact time required for killing, ability to kill microorganisms in presence of interfering species, activity against diverse types of microorganisms, antimicrobial activity even at low concentrations of the composition, ability to handle high concentrations of microorganisms and ability to provide sterility for water for long storage period.



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