Synthesis of zinc oxide nanoparticles (ZnONPs) by aqueous extract of *Amaranthus caudatus* and evaluation of their toxicity and antimicrobial activity.
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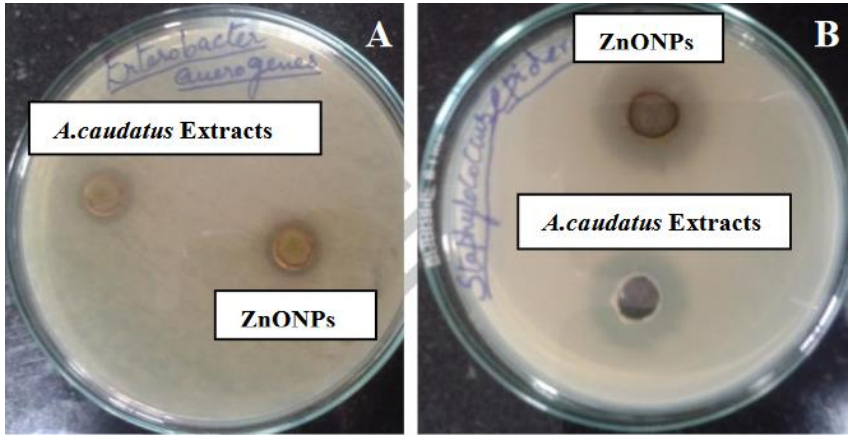
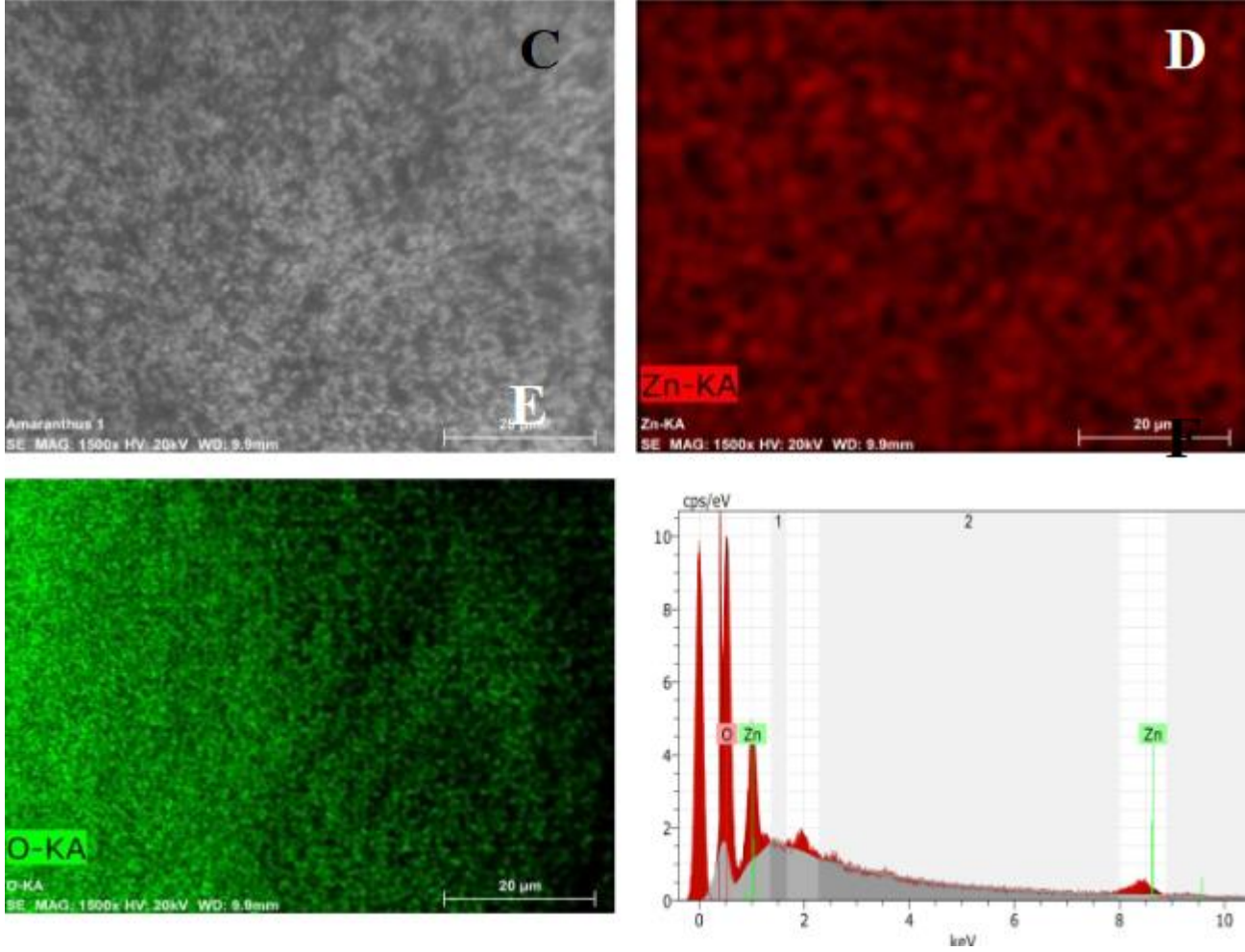
Zinc oxide nanoparticles were obtained through Zinc acetate reduction by the extract of *Amaranthus caudatus* raw extract. Obtained particles were spherical in shape with a nanometric diameter. SEM images and EDX Mapping were obtained with a EVO18 Bruker SEM and a Bruker6130 EDX detector. Before analysis samples were dried and fixed con carbon conductive tape.
Toxicity and antimicrobial activity of the simples were analyzed as well through well diffusion method.



Antimicrobial activity test of zinc oxide nanoparticles and *A. caudatus* extract by the well-diffusion method.



SEM micrography shows spherical nanoparticles with apparent homogeneous size distribution. EDX mapping shows a clear equal distribution of zinc (red) and oxygen (green) indicating that the nanoparticles are in fact zinc oxide. This proved that through the reduction of zinc acetate by the *Amaranthus caudatus* extract ceramic nanoparticles can be obtained and posses antimicrobial activity.

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