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(57) Abstract :
Disclosed herein is a silver nanoparticles of liquorice root extract loaded nanogel for the treatment of microbial infections (100) comprises preparing a liquorice root extract solution (102). The method includes preparing an aqueous AgNO3 solution in concentration (104). The method also includes mixing the liquorice root extract solution with the aqueous AgNO3 solution at room temperature and stirring to initiate biosynthesis of AgNPs (106). The method also includes allowing reduction to proceed slowly within a specified temperature, resulting in a colloidal solution of AgNPs (108). The method also includes stabilizing the biomolecules capped AgNPs to achieve a stable reddish-brown colour in the solution (110). The method also includes adding Tween 20 to the solution, followed by centrifugation to isolate the AgNP pellets (112). The method also includes washing the pellets with D.M. water and lyophilizing them for characterization and formulation development (114).

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