

## Green synthesis of PS-Ag/AgCl Nanomaterials

- *Pistia stratiotes* leaves extract was used to synthesis of nanomaterials.
- Nanomaterials are stabilised capping and reduced by phytochemical compounds.
- Nanomaterials were characteride by UV-visible, FTIR, SEM, EDX and HRTEM.
- The size of nanomaterials are range 15nm to 50nm.
- Anti-bacterials activity was done with the green synthesized nanomaterials.
- Antibacterial activity against gram-negative (*Escherichia-coli*).
- As dose of nanomaterials was increased the anti-bacterial anctivity also increased.

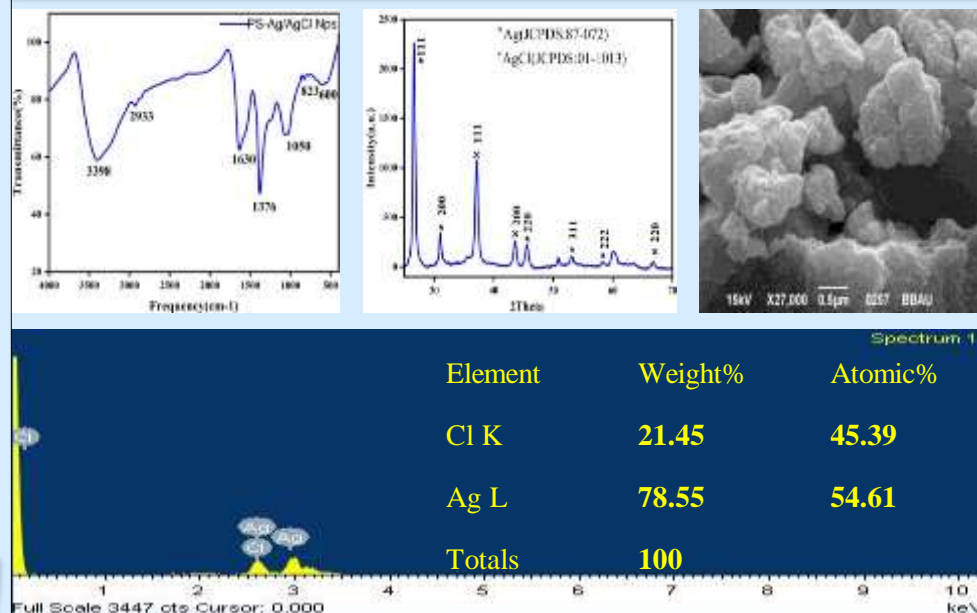


(PS-Ag/AgCl)

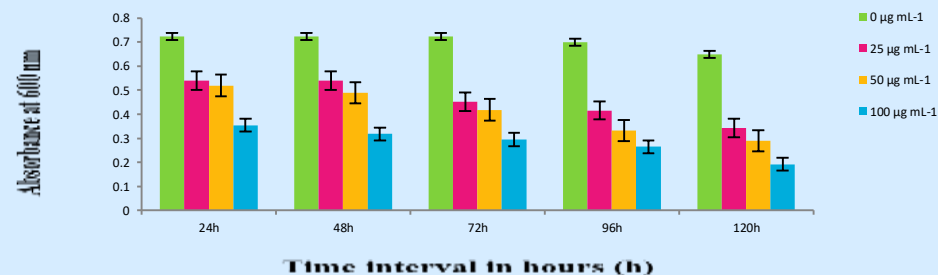
Characterization :UV-vis, FTIR, SEM,EDX and HRTEM

Anti-bacterial activity

## Characterization



## Antibacterial activity and Time interval



**Conclusion:** This study based on revealing the PS-Ag/AgCl Nps are eco-friendly, cost-effective, and comparatively less toxic was synthesized with the green approach by using *Pistia stratiotes* plant leaves. Furthermore, the biological process is simpler and easier for downstream processing. These nanomaterials are spherical. PS-Ag/AgCl Nps have been confirmed by using FT-IR, UV-vis, HRTEM, SEM, EDX, and XRD analysis. The PS-Ag/AgCl Nps so prepared expressed effective antibacterial activity.

