

## Editorial Note on Nano Research and Applications

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### Editorial Note

Nano Research and Applications (IPNTO) is an international open access, peer-reviewed academic journal publishing scholarly research articles, case reports, comprehensive/mini reviews and short communications from basic sciences to clinical sciences at a bimonthly frequency. The Nano Research and Applications issue being vast, deep and multidisciplinary in nature, an abstract perspective of the current and trending research and scholarly activities becomes important for effective transformation into research collaborations. The Journal aims to cater into the original science-based research that gains the momentum of communication between the scientific discovery and research improvement. This editorial compiles down the scientific breakthrough in the domain published by the journal and reflects their overall impact and relevance for evaluating new Nano research and technology [1-3].

Nanomedicine is leading to the advancements making a rapid change in the maintenance of health, science of prevention and ultimately curing of disease which is an emerging scientific specialty born from Nano research.

A Nanoparticle is a small object that behaves as a whole unit in terms of its transport and properties. In terms of diameter, fine particles cover a range between 100 and 2500 nanometers, Nanoparticles may or may not exhibit size-related properties that are seen in fine particles. Nanoparticle research is the most studied branch of science with the number of uses of nanoparticles in various methods and fields. The particles have huge variety of potential applications in optical and electronic fields.

Nanocages comprise a novel class of nanostructures possessing hollow interiors and porous walls. They are used as a remarkably simple galvanic replacement reaction between solutions containing metal precursor salts and Ag nanostructures prepared through polyol reduction. The electrochemical potential differences between the two species drives the reaction, with the reduced metal iniquity on the surface of the Ag nanostructure. In our most studied example, involving  $\text{HAuCl}_4$  as the metal precursor, the resultant Au is iniquities epitaxial on the surface of the Ag nanocubes, conserving their underlying cubic form. The interior Ag is oxidized and removed, together with alloying and dealloying, to produce hollow and, eventually. Research investigations in the scholarly articles bridge the Nano technology including, Nano molecular characterization, detection, and research on Nano applications of improving the future of Nano research and applications.

### References

- 1 Lim DK, Kim IJ, Nam JM (2008) DNA-embedded Au/Ag core-shell nanoparticles. *Chem Commun* 42: 5312-5314.
- 2 Feng YH, Wang Y, Wang H, Chen T, Tay YY, et al. (2012) Engineering "hot" nanoparticles for surface-enhanced Raman scattering by embedding reporter molecules in metal layers. *Small* 8: 246-251.
- 3 Zhang P, Guo YY (2009) Surface-enhanced raman scattering inside metal nanoshells. *J Am Chem Soc* 131: 3808-3809.