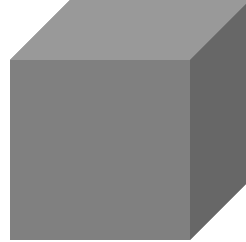


# Metallic Nanocubes and Nanocages

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**Can we control the composition of metallic nanostructures and use that synthetic control to tune properties?**

**Tunable Properties -->  
Optimization for Different Applications**



**Claire Cobley  
Early Bird Award in Nanotechnology  
Xia Group, Chemistry  
March 6th, 2007**

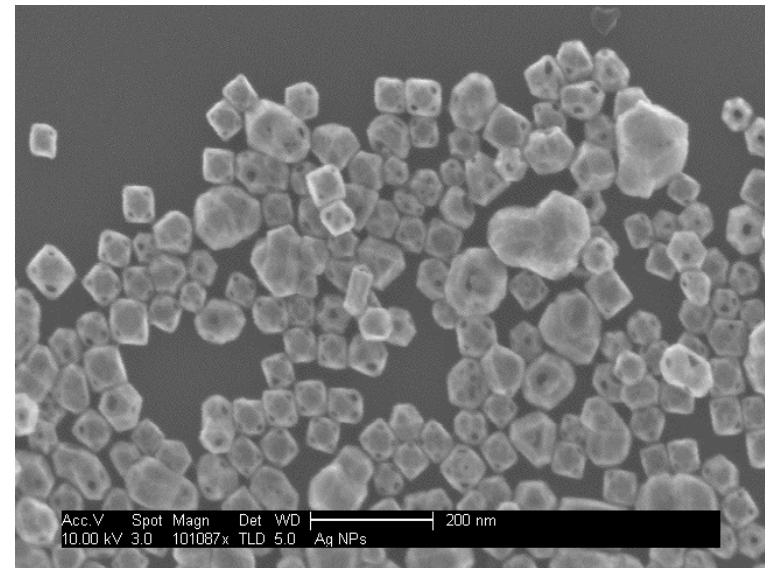
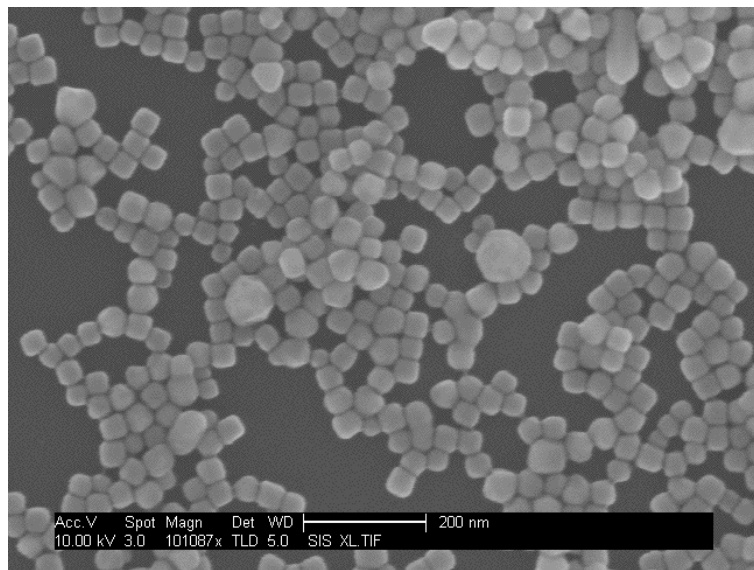


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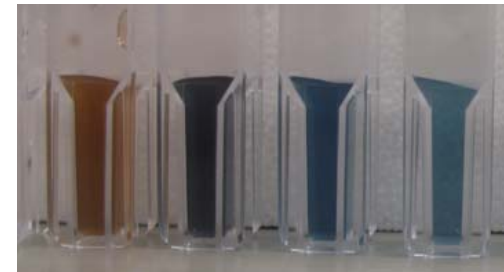


# Metallic Nanocubes and Nanocages

Building off of previous work transforming silver nanocubes into gold nanocages using a galvanic replacement reaction.



By changing the amount of gold added, particles can be tuned to absorb light in specific ranges that could be useful for cancer therapies and medical imaging.



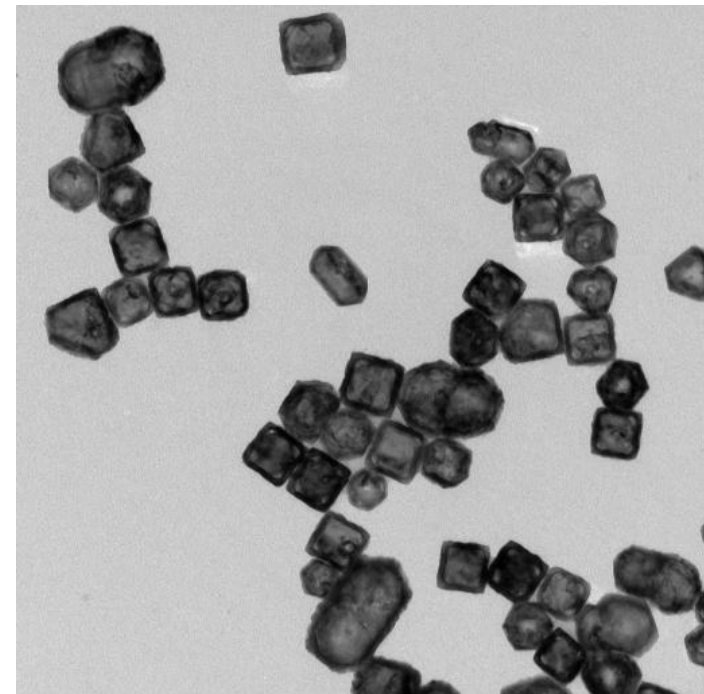
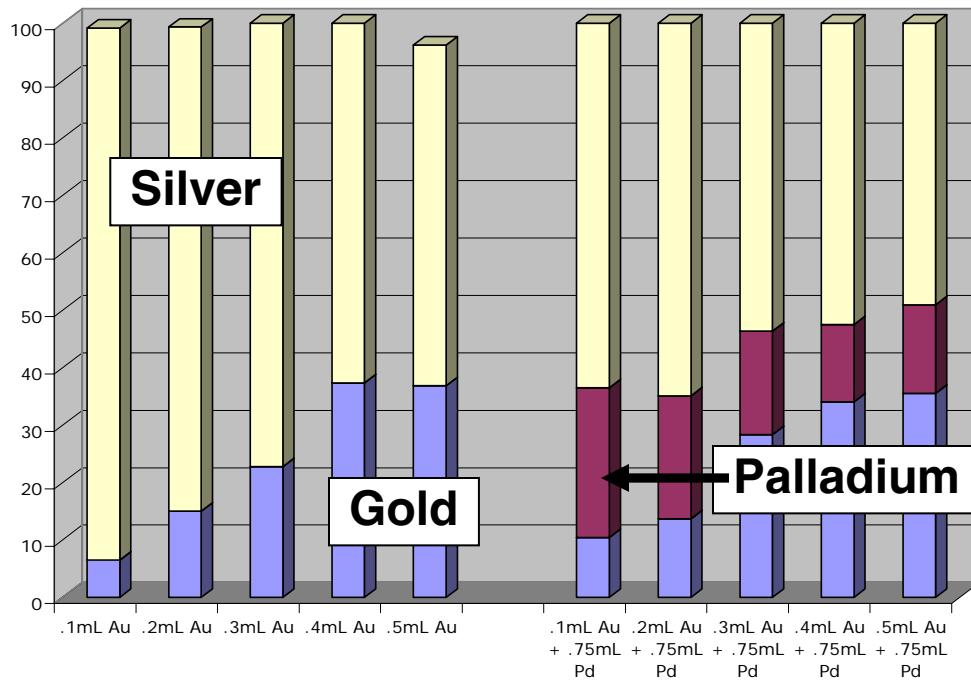
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# Metallic Nanocubes and Nanocages

**My project: Performing the same type of reaction with more than one metal - gold and palladium.**

% Composition of Gold - Palladium Alloyed Cages (Atomic %)



•Limit to how much of each metal you can have?



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