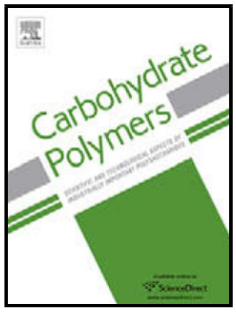

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PII: S0144-8617(17)31048-2
DOI: http://dx.doi.org/10.1016/j.carbpol.2017.09.032
Reference: CARP 12777

To appear in:

Received date: 2-6-2017
Revised date: 5-9-2017
Accepted date: 8-9-2017

Please cite this article as: Sun, Lijun., Li, Jin., Cai, Jun., Zhong, Lian., Ren, Guohui., & Ma, Qimin., One pot synthesis of gold nanoparticles using chitosan with varying degree of deacetylation and molecular weight.*Carbohydrate Polymers* http://dx.doi.org/10.1016/j.carbpol.2017.09.032

One pot synthesis of gold nanoparticles using chitosan with varying degree of deacetylation and molecular weight

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Highlights

- Molecular parameter of chitosan influenced the size and shape of synthesized Au nanoparticles (AuNPs).
- Lower degree of deacetylation (DD) chitosan is conducive to form Anisotropic AuNPs.
- Lower molecular weight (MW) chitosan showed higher reducing ability.
- The growth of polygonal AuNPs was promoted using higher concentration chitosan.
- Chitosan DD was more important than MW in the size and shape of synthesized AuNPs.