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## Characteristics of Ultrasonication Assisted Assembly of Gold Nanoparticles in Hydrazine Reduced Graphene Oxide

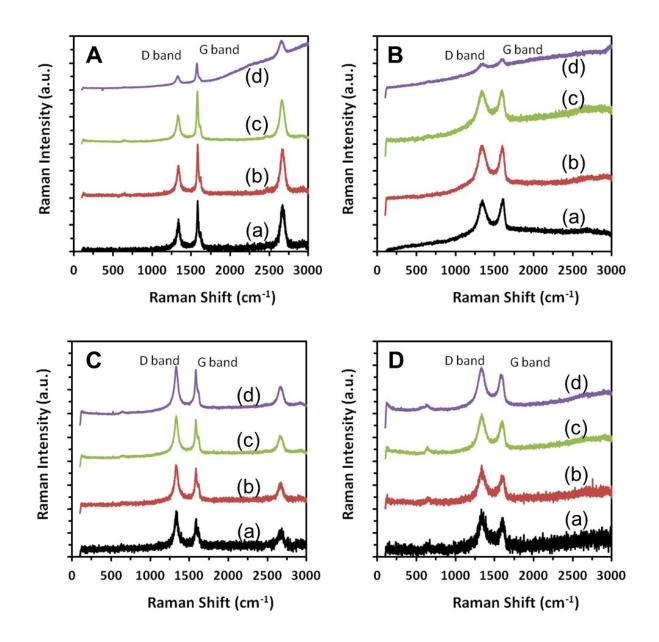
Kashyap Dave<sup>a</sup>, Kyung Hee Park<sup>b</sup>, Marshal Dhayal<sup>a†</sup>

<sup>a</sup>Clinical Research Facility, CSIR-Centre for Cellular and Molecular Biology, Hyderabad 500007, India.

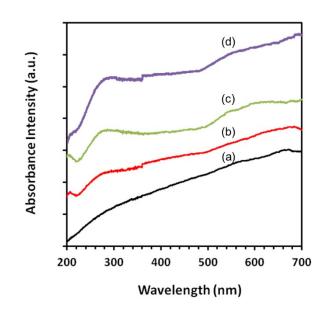
<sup>b</sup>Department of Dental Materials and Medical Research Center for Biomineralization Disorders, School of Dentistry, Chonnam National University, Gwangju 61186, Korea.

**SFig.1:** Raman spectra of (A) graphite, (B) GO, (C) hrGO and (D) hrGO-AuNP at different percentage of 633 nm laser powers (a) 5 %, (b) 10%, (c) 50% and (d) 100 %.

**SFig.2:** UV-Spectra of hrGO-AuNP (a) without sonication, (b) 10 min of sonication, (c) 20 min of sonication and (d) 30 min of sonication.



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**SFig.2:** UV-Spectra of hrGO-AuNP (a) without sonication, (b) 10 min of sonication, (c) 20 min of sonication and (d) 30 min of sonication.