

Accepted Manuscript

Title: Specific turn-on near infrared fluorescence from non-fluorescent gold nanoclusters bearing sulfhydryl oligopeptides

Authors: Nobuo Uehara, Natsumi Sonoda, Chikara Haneishi



PII: S0927-7757(17)30956-1
DOI: <https://doi.org/10.1016/j.colsurfa.2017.10.057>
Reference: COLSUA 22015

To appear in: *Colloids and Surfaces A: Physicochem. Eng. Aspects*

Received date: 4-9-2017
Revised date: 22-10-2017
Accepted date: 23-10-2017

Please cite this article as: Nobuo Uehara, Natsumi Sonoda, Chikara Haneishi, Specific turn-on near infrared fluorescence from non-fluorescent gold nanoclusters bearing sulfhydryl oligopeptides, *Colloids and Surfaces A: Physicochemical and Engineering Aspects* <https://doi.org/10.1016/j.colsurfa.2017.10.057>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

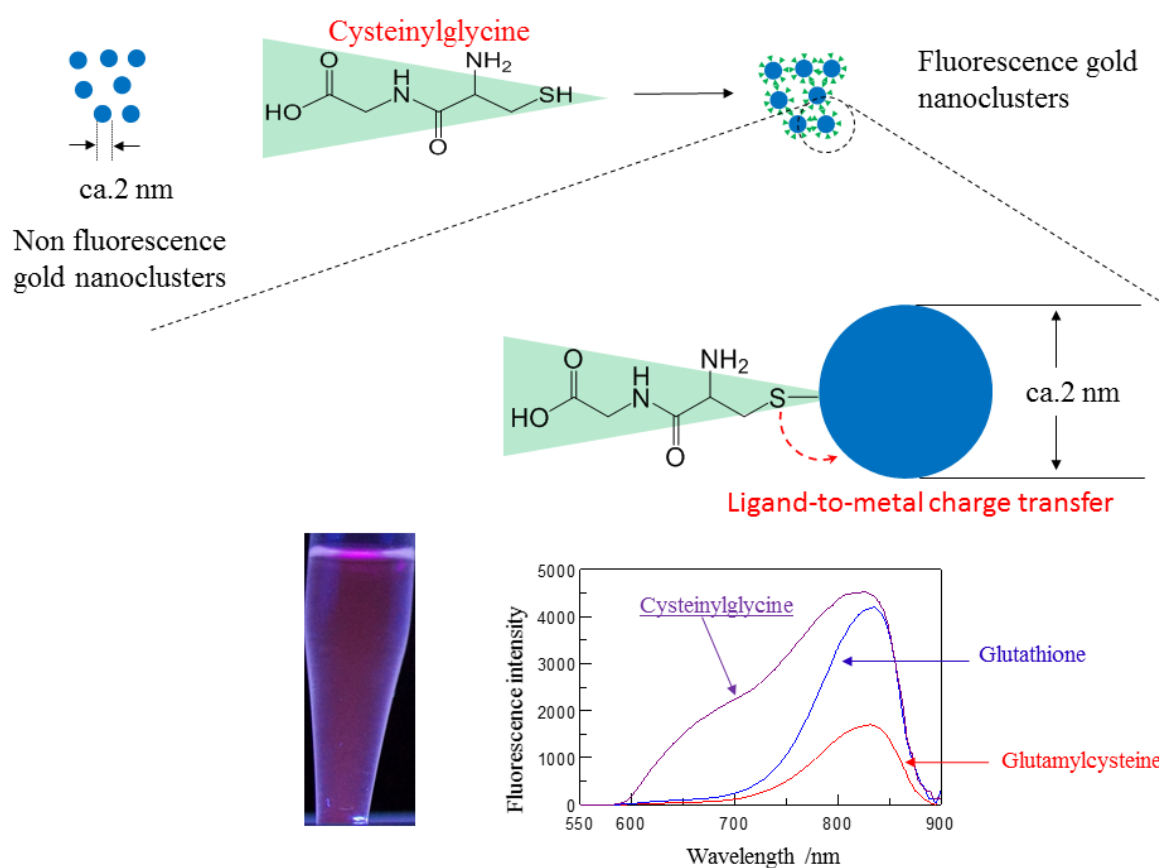
Specific turn-on near infrared fluorescence from non-fluorescent gold nanoclusters bearing sulfhydryl oligopeptides

Nobuo Uehara*, Natsumi Sonoda, Chikara Haneishi

Graduate School of Engineering, Utsunomiya University, 7-1-2 Yoto, Utsunomiya, Tochigi, 321-8585, Japan

*Corresponding author, e-mail address: ueharan@cc.utsunomiya-u.ac.jp, TEL, FAX: +81-28-689-6166

Graphical abstract



Abstract

We describe the development of near-infrared (NIR) fluorescence from non-fluorescent gold nanoclusters as a result of the reaction with sulfhydryl oligopeptides. Non-fluorescent gold nanoclusters with a diameter of about 2 nm were synthesized by reducing H₂AuCl₄ with NaBH₄ in the presence of tetraethyleneglycol. The fluorescence of the gold nanoclusters bearing sulfhydryl compounds arose from the ligand-to-metal charge

Download English Version:

<https://daneshyari.com/en/article/6977865>

Download Persian Version:

<https://daneshyari.com/article/6977865>

[Daneshyari.com](https://daneshyari.com)