Title	Preparation of Biopex-Supported Gold Nanoparticles as Potential Fiducial Markers for Image-Guided Radiation Therapy
Author(s)	Ikeda, Kai; Liu, Haoran; Miyamoto, Naoki; Mai Thanh Nguyen; Shirato, Hiroki; Yonezawa, Tetsu
Citation	ACS Applied Bio Materials, 5(3), 1259-1266 https://doi.org/10.1021/acsabm.1c01271
Issue Date	2022-02-17
Doc URL	http://hdl.handle.net/2115/88096
Rights	This document is the Accepted Manuscript version of a Published Work that appeared in final form in ACS Applied Bio Materials, copyright c American Chemical Society after peer review and technical editing by the publisher. To access the final edited and published work see https://pubs.acs.org/articlesonrequest/AOR-DJCPDJNHVGWG6DPXF6DG
Туре	article (author version)
Additional Information	There are other files related to this item in HUSCAP. Check the above URL.
File Information	Supporting Information (Yonezawa).pdf



Supporting Information

Preparation of Biopex-supported gold nanoparticles as a potential fiducial marker for image-guided radiation therapy

Kai Ikeda,[‡] Haoran Liu,[‡] Naoki Miyamoto, Mai Thanh Nguyen, Hiroki Shirato, and Tetsu Yonezawa*

^aDivision of Materials Science and Engineering, Faculty of Engineering, Hokkaido University, Kita 13 Nishi 8, Kita-ku, Sapporo, Hokkaido 060-8628, Japan

^bDivision of Applied Quantum Science and Engineering, Faculty of Engineering, Hokkaido University, Kita 13 Nishi 8, Kita-ku, Sapporo, Hokkaido 060-8628, Japan

^cDepartment of Medical Physics, Hokkaido University Hospital, Kita 14 Nishi 5, Kita-ku, Sapporo, Hokkaido 060-8648, Japan

^dGlobal Station of Quantum Medical Science and Engineering, Global Institution for Collaborative Research and Education, Hokkaido University, Kita 15 Nishi 7, Kita-ku, Sapporo, Hokkaido 060-8638, Japan

^{*}Tetsu Yonezawa. E-mail address: tetsu@eng.hokudai.ac.jp.

[‡]These authors contributed equally.

Catalogue

Figure S1. Fabrication route of Biopex-Au NPs	S3
Figure S2. Schematic diagram of the X-ray visualization test	S3
Figure S3. Color change of the mixed solution in the synthesis experiment with HAuC	C1 ₄
concentration 0.50 mmol/L, reaction time 2 h, Biopex amount 99 mg	S4
Figure S4. Optical images of liquid samples with and without Biopex after 2 h synthes	sis
and the dried Biopex-Au NPs.	S4
Figure S5. White powder collected from the supernatant	S5
Figure S6. Biopex-Au NPs injected through 18 G, 19 G, and 21 G needles	S5
Figure S7. Cured Biopex-Au NPs taken out from jelly.	S5

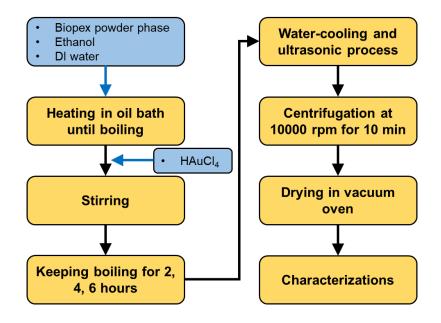


Figure S1. Fabrication route of Biopex-Au NPs.

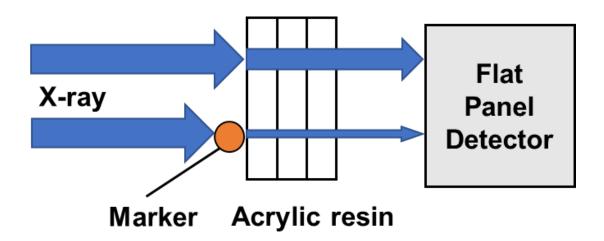


Figure S2. Schematic diagram of the X-ray visualization test.

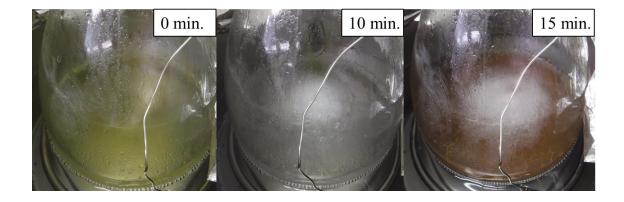


Figure S3. Color change of the mixed solution in the synthesis experiment with HAuCl₄ concentration 0.50 mmol/L, reaction time 2 h, Biopex amount 99 mg.

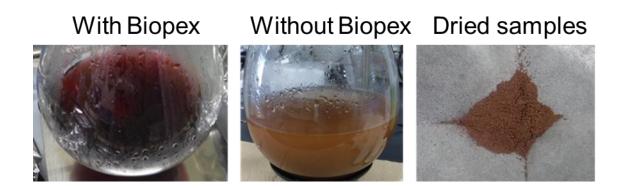


Figure S4. Optical images of liquid samples with and without Biopex after 2 h synthesis and the dried Biopex-Au NPs.



Figure S5. White powder collected from the supernatant.



Figure S6. Biopex-Au NPs injected through 18G, 19G, and 21G needles.



Figure S7. Cured Biopex-Au NPs taken out from jelly.