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Doctoral Degree in Electrical Engineering

Thesis Title:

Application of Upconverting Nanoparticles and Gold Nanorods for Biomedical Sensing and Detection

Have you performed research involving human subjects which requires approval from the Institutional Review Board (IRB)? Yes No

IRB Protocol Number _____

Have you used live animals, animal tissue, or observational animal work which requires approval from the Institutional Animal Care and Use Committee (IACUC)? Yes No

IACUC Protocol Number _____

Attach the final copy of thesis/dissertation for committee review. While formatting changes may be requested by the Graduate School, the content of the attached document should be final.



Approvals:

Committee Chair Name Won Park

Signature  _____ Date Signed 7/31/2023

Committee Member Name Carol Cogswell

Signature  _____ Date Signed 7/31/2023

The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above-mentioned discipline.