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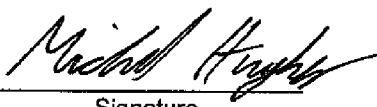
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Invention Title: Methods of Controlling Nanoparticle Growth Cross-Reference To Related ApplicationsInventor(s): Chad A Mirkin, Gabriella S Metraux, Rongchao Jin, YunWei Charles CaoU.S. Filing/Issue Date: 04/02/2004Patent or Application Serial No.: 10/817,754Grant/Contract Number(s): EEC-0118025, F49620-02-1-0180 and N00014-03-1-0800

Foreign Applications filed/intended in (countries): _____

The invention identified above is a Subject Invention under **35 U.S.C. 200, et seq.**, and the Standard Patent Rights clause at **37 CFR 401.14, FAR 52.227-11** or **FAR 52.227-12** (if applicable) which are included among the terms of the above identified grant or contract award from the United State Government. This document is confirmatory of:

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Signed this 15th day of July, 2004.By Indrani Mukharji, PhD
(Name of Grantee/Contractor Official)Indrani Mukharji
(Signature)Title Executive DirectorFor Northwestern University, Technology Transfer Program
(Grantee/Contractor Organization)At 1880 Oak Avenue - Suite 100Evanston, Illinois 60201Program Coordinator 847-491-3005Reference No. NU 23024/24030
(Business Address)

NY 23024/24030
10/817,754**METHODS OF CONTROLLING NANOPARTICLE GROWTH****CROSS-REFERENCE TO RELATED APPLICATIONS**

This application claims priority to U.S. Provisional Patent Application Serial No. 60/460,152, filed 2 April 2003, which is incorporated herein by this reference in its
5 entirety.

GOVERNMENT INTEREST

This invention was made with Government support under Grant No. EEC-0118025 awarded by the National Science Foundation, Grant No. N00014-03-1-0800 awarded by the Office of Naval Research, and Grant No. F49620-02-1-0180/P00001
10 awarded by the Air Force Office of Scientific Research. The Government has certain rights in this invention.

FIELD OF THE INVENTION

The invention resides in the field of nanoparticles and specifically in methods of forming silver nanoprisms of varying sizes.

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BACKGROUND OF THE INVENTION

Nanoclusters are an important class of materials that are having a major impact in a diverse range of applications, including chem- and biodetection, catalysis, optics, and data storage. The use of such particles dates back to the middle ages, and the scientific study of them has spanned over a century. These nanostructures are typically made from
20 molecular precursors, and there are now a wide variety of compositions, sizes, and even shapes available. Because of their unusual and potentially useful optical properties, nanoprism structures in particular have been a recent synthetic target of many research groups. We recently reported a high yield photosynthetic method for the preparation of triangular nanoprisms from silver nanospheres. For many nanoparticle syntheses, an
25 Ostwald ripening mechanism, where large clusters grow at the expense of smaller ones, is