Billing Code: 3510-13

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Prospective Grant of Exclusive Patent License

AGENCY: National Institute of Standards and Technology

ACTION: Notice of prospective grant of exclusive patent license.

SUMMARY: This is a notice in accordance with 35 U.S.C. 209(e) and 37 CFR 404.7(a)(1)(i) that the National Institute of Standards and Technology ("NIST"), U.S. Department of Commerce, is contemplating the grant of an exclusive license in the United States of America, its territories, possessions and commonwealths, to NIST's interest in the invention embodied in U.S. Provisional Patent Application No. 61,623/957 titled "Highly Selective Gallium Nitride Nanowire/Titanium Dioxide-Nanocluster Hybrid Sensors for Detection of Benzene and Related Environmental Pollutants," NIST Docket No. 11-019 to the University of Maryland, having a place of business at 0133 Cole Student Activities Building, College Park MD 20742-1001. The grant of the license would be for all fields of use.

FOR FURTHER INFORMATION CONTACT: Terry Lynch, National Institute of Standards and Technology, Technology Partnerships Office, 100 Bureau Drive, Stop 2200, Gaithersburg, MD 20899, (301) 975-2691, *terry.lynch@nist.gov*.

SUPPLEMENTARY INFORMATION: The prospective exclusive license will be royalty bearing and will comply with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7. The prospective exclusive license may be granted unless, within fifteen days from the date of this published Notice, NIST receives written evidence and argument which establish that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR 404.7.

U.S. Provisional Patent Application No. 61,623/957 is co-owned by the U.S. government, as represented by the Secretary of Commerce, George Mason University, and the University of Maryland. This invention is a chemical sensor architecture that combines the sensitive transduction capability of semiconducting nanostructures together with the enhanced catalytic efficiency of metal and metal-oxide nanoclusters. Nanowire-nanocluster hybrid chemical sensors are realized by functionalizing gallium nitride (GaN) nanowires (NWs) with titanium dioxide (TiO2) nanolusters for selectively sensing benzene and other related aromatic compounds. The Hybrid sensor devices are made by fabricating two-terminal devices using individual GaN NWs followed by the deposition of TiO2 nanoclusters using RF magnetron sputtering. The sensor fabrication process employed standard microfabrication techniques.

Dated: October 12, 2012

Willie E. May
Associate Director for Laboratory Programs

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