PROJECT ANNEX

to the

MEMORANDUM OF UNDERSTANDING BETWEEN
The NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY OF THE
DEPARTMENT OF COMMERCE OF THE UNITED STATES OF AMERICA,
AND

THE PHYSIKALISCH TECHNISCHE BUNDESANSTALT
AND

THE BUNDESANSTALT FUR MATERIALFORSCHUNG UND -PRUFUNG
OF THE FEDERAL REPUBLIC OF GERMANY.

Background

Pursuant to the Memorandum of Understanding (MOU) between the National Institute of Standards and Technology (NIST) of the United States of America, the Physikalisch-Technische Bundesanstalt (PTB) of the Federal Republic of Germany, and the Bundesanstalt für Materialforschung und -prüfung of the Federal Republic of Germany concerning cooperation in Chemistry, Physics and Engineering Measurement Sciences, Materials Technology, Standard-Related Activities and Interchange of Technical Information signed on May 25, 2011 and in effect until May 24, 2016, the Microanalysis Research Group in Division 643 and PTB’s Department 7.2 Cryophysics and Spectrometry intend to engage in a research cooperation on the development of x-ray spectroscopy.

Object of cooperation

The goal of the collaborative research described by this Project Annex is to promote and intensify research and development in the field of x-ray spectroscopy and related instrumentation for the improved metrology of x-ray fundamental parameters. Activities contemplated by this Project Annex are subject to the availability of funds and other necessary resources to the parties.

Project Annex Personnel

Dr. Burkhard Beckhoff, Dr. Matthias Müller, and Dr. Thomas Schurig, of PTB’s Department 7.2 Cryophysics and Spectrometry, and Dr. Terrence Jach of NIST’s MML Material Measurement Science Division are the representatives who are primarily involved in the collaborative research under this Project Annex. They are responsible for the planning, organization and communication of the objectives of the project.
Project objectives

1) Perform collaborative experiments using state-of-the-art calibrated instrumentation in high resolution x-ray spectrometry at the BESSY II light source
2) Facilitate sample preparation
3) Facilitate the visits of short-term guest workers
4) Facilitate the exchange of measurement equipment
5) Explore a manner in which NIST might be an unfunded co-participant in European-funded multi-standards laboratory projects on x-ray fundamental parameters.

Findings and publications

Publication of the results of this collaborative research is an important goal of the Project. Publications will be discussed and coordinated between both groups, and the collaboration under this Project Annex to the MOU will be clearly acknowledged. The parties intend that the results and findings of this collaborative research be exploited jointly.

Duration of Project

This Project Annex may be amended, extended or terminated by prior written notice of any of the participants. The term of the collaborative research described in this Project Annex is expected to be 24 months from the date of signatures; this period will be extended by 12 months unless one of the parties declares the termination of the Project upon 1 month notice.

Date: 6-9-15

[Signature]
John Smull, Dir. Chief
FOR THE MATERIAL MEASUREMENT
DIVISION OF THE NATIONAL INSTITUTE
OF STANDARDS AND TECHNOLOGY

Date: 1. Juni 2015

[Signature]
Manfred Gebruns, Head of Legal Department
FOR AND ON BEHALF OF
PHYSIKALISCH- TECHNISCHE
BUNDESANSTALT