MEMORANDUM OF UNDERSTANDING

CONCERNING THE COOPERATION

between the

EUROPEAN COMMUNITY

and the

National Institute of Standards and Technology, Chemical Science and Technology Laboratory

N° 48978

The European Community, represented by the European Commission, represented for the purpose of signing this Memorandum of Understanding, hereinafter referred to as "Memorandum of Understanding", by Dr. Alejandro HERRERO MOLINA, Director of The Institute for Reference Materials and Measurements of the Joint Research Centre (hereinafter referred to as "IRMM"),

and

The Chemical Science and Technology Laboratory of the National Institute of Standards and Technology (hereinafter referred to as "CSTL/NIST"), represented for the purpose of signing this Memorandum of Understanding by Dr. Willie E. MAY, Director of CSTL/NIST,

hereafter referred to individually as "the Party" or collectively as the "the Parties",

desire to enter into a non-binding Memorandum of Understanding concerning cooperation on scientific research on measurement standards.

WHEREAS:

1. The Parties wish to develop a formal relationship that permits co-operative research on measurements and their quality assurance, technical co-operation in the preparation and characterization of reference materials, early on co-ordination of research and development programmes where feasible, and harmonization of efforts within international metrology and standardisation bodies in order to enhance the capabilities

of each Party to carry out their responsibilities in chemical metrology, biometrology and international measurement standards.

- 2. IRMM' mission is to promote a common and reliable European measurement system in support of EU policies. The prime objective of the IRMM is to build confidence in the comparability of measurements by the production and dissemination of internationally accepted quality assurance tools, including reference materials, validated methods, reference measurements, inter-laboratory comparisons and training.
- 3. NIST promotes U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve the quality of life. The Chemical Science and Technology Laboratory of NIST conducts research in measurement science and develops the chemical, biochemical, and chemical engineering measurements, data, models, and reference standards that are required to enhance U.S. industrial competitiveness in the world market and to improve public health, safety, and environmental quality.
- 4. Through joint efforts of CSTL/NIST and IRMM, new approaches and tools can be identified and developed for the quality assurance in various areas of measurement science, thus working to the mutual benefit of both organisations and the achievement of their objectives and respective missions.
- 5. This Memorandum of Understanding is a statement of intent of the parties to cooperate and is not intended to be legally binding

HAVE AGREED AS FOLLOWS:

ARTICLE 1 - OBJECTIVES OF THE MEMORANDUM OF UNDERSTANDING

- 1.1. The general objective of this Memorandum of Understanding is to contribute more effectively to the development and availability of international measurement standards, in particular reference materials.
- 1.2. The Memorandum of Understanding will, in particular, have the following objectives:
 - To co-operate in the preparation of and measurement on new candidate reference materials,

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- To co-ordinate where feasible the range of reference materials which are to be developed by NIST and IRMM,
- To facilitate the common understanding of scientific and technical issues which have to be harmonized by international metrology and standardisation bodies for advancing the international comparability and reliability of measurements.
- 1.3. To achieve fully the objectives of this Memorandum of Understanding, NIST and IRMM intend to take the following actions:
 - To establish a biannual work programme detailing specific joint project cooperation and other activities, such as organisation of workshops or conferences,
 - To identify jointly crucial issues for quality assurance of measurements at the global level,
 - To initiate and to maintain a dialogue on reference materials and reference measurements, exploring possibilities for developing research projects of mutual interest,
 - To exchange appropriate scientific and technological information,
 - To share, where feasible, specific capabilities to prepare new reference materials and characterize selected properties of them,
 - To work jointly to develop activities for the further international understanding and acceptance of metrology and standardisation in various fields of measurements.
- 1.4. The Parties intend to exchange research results and to conduct, if deemed advantageous, joint seminars, workshops and conference sessions subject to terms and conditions agreed upon between the Parties.
- 1.5. In case of projects consistent with Article 1.3., the Parties may, prior to starting such project and on a case-to-case basis, conclude in advance, a specific written agreement setting up the arrangements related to the project. These agreements will cover technical, legal (including the responsibilities of each Party and intellectual property rights, publicity) and financial aspects as far as necessary.

ARTICLE 2 - RESPONSIBILITIES OF PARTIES

Each Party will be responsible for its own personnel and the performance of its own tasks in activities undertaken pursuant to this Memorandum of Understanding.

ARTICLE 3 - COORDINATION GROUP

- 3.1. The Parties will establish a Coordination Group to guide projects/activities agreed by the Parties in accordance with Article 1 of the Memorandum of Understanding. The Group intends to meet approximately once a year to evaluate past activities, develop biannual plans for future activities, and discuss any matter concerning the functioning of this Memorandum of Understanding. To this end, CSTL/NIST and IRMM will each designate a person to serve as its co-ordinator with responsibility for planning and co-ordinating matters. These co-ordinators will also be free to nominate any other members to represent them or to attend meetings. The meetings are prepared by the co-ordinators.
- 3.2. The co-ordinator for IRMM shall be Professor Hendrik Emons, European Commission, Joint Research Centre, Institute for Reference Materials and Measurements, Retieseweg 111, B-2440 Geel, Belgium.
 - The co-ordinator for CSTL/NIST shall be Dr. Stephen A. Wise, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8390, Gaithersburg, MD 20899-8390, USA.
- 3.3 All notifications and correspondence under this Memorandum of Understanding shall be sent to the co-ordinators.
- 3.4. Parties shall communicate to each other in writing any changes with regard to the officials above mentioned.
- 3.5. The Coordination Group will appoint one or several project managers where appropriate. Each project manager will, for the task as described by the Coordination Group, be responsible for (i) the execution of the plan outlined and agreed by the Coordination Group and (ii) the communication on the projects accepted by the Parties within the framework of this Memorandum of Understanding.

ARTICLE 4 - FUNDS

4.1. All activities conducted pursuant to this Memorandum of Understanding shall be subject to the availability of appropriated funds, personnel and other resources as well to the applicable laws and regulations, policies and programmes of each Party. No party

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is required to commit funds to any activity contemplated by this Memorandum of Understanding.

- 4.2. Each Party shall bear the cost of any expenditure it incurs relating to the performance of its tasks under this Memorandum of Understanding.
- 4.3. Travel expenses for staff will be funded by their respective Parties.

ARTICLE 5 - NON-BINDING MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding is a statement of intent of the parties to cooperate as outlined. It does not create legal rights or responsibilities for any party. This Memorandum of Understanding shall not be the basis of any legal dispute between the parties.

ARTICLE 6 - CONFIDENTIALITY

- 6.1. Each Party shall have the right to the free use of any information resulting from the activities conducted pursuant to this Memorandum of Understanding for its own internal, non-commercial purposes, subject to Article 6.2 below.
- 6.2. During the term of this Memorandum of Understanding and for a period of five years following its termination, neither Party shall make publicly available or present any information resulting from the information exchange and activities conducted by the other Party pursuant to this Memorandum of Understanding or transmit the results of any such activities to any third party, without first obtaining the Memorandum of Understanding of the other Party.
- 6.3. The provisions of the present Article shall remain valid after the expiry or termination of this Memorandum of Understanding.

ARTICLE 7 – GENERAL PROVISIONS

7.1. The relationship of IRMM and NIST established by this Memorandum of

Understanding is that of independent contractors and nothing contained in this Memorandum of Understanding shall be construed to (i) give either Party hereto the power to direct and control the day-to-day activities of the other, (ii) constitute the Parties as partners, joint ventures, principal and agent, employer and employee, co-owners, or otherwise as participants in a joint undertaking, or (iii) allow a Party to create or assume any obligation on behalf of the other Party for any purpose whatsoever.

7.2. The execution of this Memorandum of Understanding by the Parties does in no event prevent a Party to perform activities (whether or not with third parties) in the field covered by but outside the Memorandum of Understanding.

ARTICLE 8 - EXECUTION AND DURATION

- 8.1. This Memorandum of Understanding shall begin on the date of its signature by the last Party and is concluded for a period of five (5) years from said date. This Memorandum of Understanding may be extended or amended only by written agreement signed by the duly authorised representatives of both Parties.
- 8.2 Either Party may terminate this Memorandum of Understanding at any time upon written notice to the other Party. Activities in progress on the date of such written notice shall proceed to completion, unless the Parties otherwise agree in writing.
- 8.3. The Parties shall evaluate the implementation of this Memorandum of Understanding after it has been in effect for two and one-half (2.5) years. On the basis of this evaluation, the Parties may make modifications for the purpose of better fulfilling the objectives of this Memorandum of Understanding or decide its termination.

Done in duplicate at Geel, Belgium / Gaithersburg, MD, USA in two originals in the English language,

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY CHEMICAL SCIENCE AND TECHNOLOGY LABORATORY EUROPEAN COMMISSION
JOINT RESEARCH CENTRE
INSTITUTE FOR REFERENCE
MATERIALS AND MEASUREMENTS

BY:

BY:

Dr. Willie E. May

Director

Chemical Science and Technology Laboratory

Gaithersburg, 17 Jec 2007

Dr. A. Herrero

Director

Institute for Reference Materials

and Measurements

Geel, 17/December, 2007