

XXII Latin American Congress of Surface Science and its Applications

Foreword

This special issue of the Brazilian Journal of Physics is dedicated to the scientific contributions to the Latin American Congress of Surface Science and its Applications – CLACSA-12, that was held in Angra dos Reis, Rio de Janeiro, from 5 to the 9 December 2005. It contains several carefully peer-reviewed papers by a group of distinguished physicists, specialists in the area of surface physics and nanoscience, most of them participants of the conference.

This 2005 CLACSA is the 12th conference of a series that was first conceived and organized as a joint project of the Latin American Center for Physics (CLAF) and the Physics Department of Universidade Federal Fluminense in 1980. It has been successfully held bi-annually in several countries of Latin America (Brazil-1980, Mexico-1982, Costa Rica-1984, Venezuela-1986, Colombia-1988, Peru- 1990, Argentina-1992, Mexico-1994, Cuba-1999, Costa Rica- 2001, Chile 2003 and Brazil-2005).

The **CLACSA** Conference has been organized with the support of the Sociedade Latinoamericana de Ciencias de Superficie (SLACS) with the purpose of becoming a forum for interchange of information associated with scientific research carried out in Latin America in the field of surface physics and nanoscopic systems. It has contributed to the formation of a scientific and technological basis in the region, stimulating scientific collaboration among physicists from Latin America and other parts of the world. Due to its high scientific level and continuity, along the years it has become one of the most important scientific activities within the region.

The conference consisted of plenary lectures, invited talks, oral presentations and poster sessions. Its activities were structured in the format of two symposia: (i) Surfaces, Interfaces, and Thin Films and (ii) Electronic and Magnetic Properties of Nanoscopic Systems.

All aspects of the frontiers of the respective areas of research were covered by both symposia. The emphasis given to the symposium on Nanoscopic Systems reflects the importance that this area has acquired in Latin-American and in the world, due to its relevance for the progress of science and technology.

The Conference had the participation of a large number of outstanding scientists coming from different countries, with a large representation of the Latin American region, and a significant number of students, most of them presenting their contributions in the poster sessions.

We would like to acknowledge the Brazilian Physical Society (SBF) for giving us the opportunity of editing the proceedings as an special issue of the Brazilian Journal of Physics. We thank as well the financial agencies and institutions (CAPES, CNPq, FAPESP, FAPERJ, CLAF, UFF, PUC-Rio), the NSF, from USA, and in particular the Brazilian Physical Society for sponsoring the realization of this conference.

Enrique V. Anda and Andrea Latgé
Guest editors

Declaração de Angra dos Reis

Os participantes do 12º Congresso Latino-Americano de Ciências de Superfícies e suas Aplicações, CLACSA 12, realizado em Angra Dos Reis, entre 5 e 9 de dezembro de 2005, convictos de que a pesquisa científica e tecnológica, nos temas que foram debatidos na conferência, poderá exercer um papel fundamental no desenvolvimento dos países latino-americanos, decidiram fazer a seguinte declaração:

”Consideramos de importância estratégica fomentar o intercâmbio regional entre cientistas e tecnólogos latino-americanos com o intuito de avançar na criação de novos conhecimentos nas áreas de **materiais avançados e sistemas nanoscópicos**, no âmbito regional. Esta atividade deverá ser exercida em articulação estreita com as indústrias locais para que estes conhecimentos possam se integrar no processo produtivo e fortalecer o perfil científico e tecnológico da indústria regional.

Para conseguir este objetivo assumimos o compromisso de procurar recursos financeiros necessários para reforçar os vínculos já existentes e criar novos, fomentar a formação de recursos humanos, e desenvolver uma infraestrutura experimental a ser compartilhada por cientistas da região.”

Assinam esta declaração participantes do CLACSA 12 na qualidade de representantes dos países envolvidos.

Enrique V. Anda
Chairperson de CLACSA 12.
Presidente da Sociedade Latinoamericana de Física de Superfícies e suas Aplicações. PUC-Rio, **Brasil**.

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The Angra dos Reis Declaration

The participants of the 12th Latin American Congress of Surface Science and its Applications (CLACSA 12), held in Angra dos Reis from December 5 to 9, 2005, convinced that the research in the scientific and technological areas discussed during the Conference may play an important role in the development of the Latin American countries, issued the following statement:

"The participants of the 12th Latin-American Congress of Surface Science and its Applications consider of extreme importance the promotion of regional collaboration among Latin-American scientists, in order to develop the area of advanced materials and nanoscopic systems within the region. This activity has to be undertaken in close connection with local industries in order to promote the development of an economic infrastructure based on science and technology.

In order to reach this goal the participants of CLACSA 12 assume the compromise of engaging themselves in initiatives to obtain financial support necessary to reinforce the already existent scientific collaborations, to promote new ones, to contribute to the formation of new scientists working in these areas of research and to the development of an experimental infrastructure to be shared by scientists from different countries of Latin-America".

This statement is signed by CLACSA 12 participants representing the Latin-American countries.