The manuscripts in this special issue of ACA are contributions that were presented at the CAC 2004 conference. CAC 2004 was the ninth international conference on Chemometrics in Analytical Chemistry and was held in Lisbon, Portugal from 20 to 23 September 2004. The efficient organization and the kind welcome received were responsibility of the local organizing team, presided by Dr. Jose Cardoso de Menezes, Dept. of Chemical Engineering, I.S.T. Lisbon, Portugal. There were 240 participants present, originating from 40 different countries. A significant part of the participants came from outside Europe, including Asian and South American countries.

The conference motto was “New Challenges for a Maturing Science”. The program was organized around themes that emphasized new developments and applications of chemometrics in Biosciences, Chemistry, Chemical & Process Engineering, Food, Environmental and Pharmaceutical areas that reflect the important issues in chemometrics research.

A special session was included in which Prof. Bernard Vandeginste gave an interesting lecture on the history, foundation and founding fathers of chemometrics. Prof. Massart, one of the founders of the CAC conference, was unable to attend the conference due to illness, but his words and his presence came to us through a significant and moving videotape. This session, where many of the parent voices of chemometrics could be listened in a relaxing atmosphere, was highly appreciated by all participants.

The conference dinner was also the venue for the presentation of the fourth Elsevier Chemometrics Award for the noteworthy contributions in the field of chemometrics by a young chemist. The award of this edition was shared by Karl Booksh, from the Arizona State University, and Anna de Juan, from the Universitat de Barcelona.

This CAC conference was again very successful and motivating. The many contributions, the posters as well as the lectures, have certainly challenged the participants to develop new approaches to solve the major scientific challenges in chemometrics. We are convinced that everyone is already looking forward to CAC 2006 that this time will be held for the first time at the other side of the Equator, namely, in Brazil state of S. Paulo (Campinas) from 10 to 14 September 2006. The motto of CAC 2006 will be Chemometrics in the Tropics, Nature, Medicine and Industry. The website of CAC 2006 is http://www.cac2006.iquimbicamp.br/