## PREFACE

Project No.101/03/1402 "Utilisation of alternative fuels in FBC Boilers (burned brown coal)" deals with the environmental, economic and technological utilisation of the process of fluid combustion of coal, carbonaceous waste and biomass. The Project is based on the successful operation of several combustion facilities as mentioned above. The utilisation of the heat in gas and the steam cycle is also an important part of our research.

The individual papers deal with separate parts of the research and are focused on minority harmful components of flue gases, granulometry influence, chemical characteristics, mechanical properties, crystallography of solid products and the mass balance of the volatile harmful parts (Cl, S, Hg, V, Ni, As, etc.).

This monothematic issue contains 8 papers on the optimum utilisation of alternative fuels in FBC boilers under conditions prevailing in the Czech Republic. All papers have been sponsored by the Czech Science Foundation.

Prof. Ing Václav Roubíček, CSc, Dr.h.c. Main investigator

## ACKNOWLEDGEMENT

As the principal researcher of Czech Science Foundation Grant No. 101/03/1402 "Utilisation of alternative fuels in FBC Boilers (burned brown coal)" and the Ministry of Education, Youth and Sports Research Plan 6198910019 "Processes of Reduction of Emissions of  $CO_2$  – De  $CO_x$  Processes" I would like to thank the Director of the Institute of Rock Structure and Mechanics of the Academy of the Sciences of the CR in Prague, Mr. K. Balík, for arranging the publication of the outcomes of our work in Acta Geodynamica et Geomaterialia. My team is connected with this Institute in several mutual long-term research programs of chemical and energetic processing of fuels, in the area of carbonaceous materials and recently also studies of nanostructures.