Preface

The aim of the High Pressure School (HPS) is to provide a platform where young and experienced researchers can meet and exchange experiences in high-pressure research and techniques. Since 1996, three schools have taken place in Warsaw. A tradition developed to combine the topic of high pressure techniques with workshops related to the rapidly developing fields of high pressure science and technology: chemistry, biology, materials science, with special attention to nanostructured materials. The program of the school includes also visiting laboratories of the High Pressure Research Center "Unipress" in Warsaw, who is organising the School. The visits are combined with equipment demonstrations and lectures on the research subjects studied in the particular laboratories.

HPS'4 consisted of 4 workshops:

1) Application of High Pressures in Food Processing and Biotechnology

Inactivation of microorganisms and enzymes using high pressure, chemical reactions in biological materials: pigments, enzymes, and proteins. Structural changes in biological molecules and biopolymers.

2) High Pressures in Chemistry

Synthetic applications, mechanistic applications, new synthetic routes.

3) High Pressures in Materials Science

Sintering and consolidation of nanocrystalline materials, synthesis of nanocrystalline materials, diffusion, defects, phase transformations, reaction diffusion.

4) High Pressure Techniques

Equipment for the study of the pressure effect on chemical reactions, solid-state transformations, and biological materials.

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