## **Preface**

This Collection of scientific papers is prepared as the event of the National Contact Point "Secure, Clean and Efficient Energy" under the support of the Ministry of Education and Science of Ukraine. This issue is dedicated to the 120th anniversary of the National Mining University (Dnipro, Ukraine). Solving the technological challenges in non-traditional mining also as other quality substance transforming is the constituent processes in physical and chemical solid state phenomena. Presented works together with scientific substantiation have an analytical justification and practical proof of received results.

From the papers presented at the event of the National Contact Point "Secure, Clean and Efficient Energy", 24 of them were selected for publication at this volume after a reviewing process. They cover a wide range of topics regarding non-tradition mining technologies and provide the recent knowledge and achievement.

Relevant issue of this collection is the geography of presented works. The authors, who had presented results of the researches were from Europe, Asia, Africa and South America. The areas of the investigation were directed on energy and mineral resources mining and their physical and chemical transformation and usage. Also, a lot of information was paid to non-traditional coal mining, because it has been proven that the coal is the most investigated industrial resource of fuel resources that use all leading countries of the world to provide sustainability to their national energy industries.

We believe the volume will be essential reading for those in the related areas and will provide an inspiration for future studies and achievement.

The editors acknowledge the contribution of the organization staff, members of program committees, authors, and expert referees who spared their valuable time. We would like to express the warmest thanks to conference participants and sponsors for their support. Finally, we express our gratitude to Pavlo Saik and Daria Pilova for providing extra help in current volume preparation.

## **Editors:**

Gennadiy Pivnyak; Roman Dychkovskyi; Edgar Cáceres Cabana; Adam Smoliński.