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**Proceedings of the Third International Symposium on
Innovation and Technology in the Phosphate Industry** 

-SYMPHOS 2015-
May 18th – 20th, 2015 – Marrakech- Morocco



Edited By
Mr Rachid Boulif
Symphos Project Manager, OCP S.A

Foreword

The OCP Group organized the third edition of SYMPHOS from May 18 to 20, 2015 in Marrakech, Morocco. SYMPHOS 2015 focuses on Innovation technology and current trends in processes to upgrade phosphates and derivatives and R&D prospects in the phosphate sector. SYMPHOS 2015 attracted an impressive mix of worldwide phosphates and derivatives industry players 1360 participants. SYMPHOS has become a flagship event where producers, engineering, services, equipment and technology providers in areas related to the valorization of all forms of phosphate meet to engage in high-level networking and share industry knowledge. SYMPHOS 2015 also featured a marked increase in the number of participants, scientific and technical communications and exhibitors compared to the second edition. This 2015 edition, held over 3 days, saw the presentation of 148 papers as panel presentations, and the organization of 7 workshops, 19 plenary lectures or keynotes about innovation, agriculture, new processes and a space for exchanges and meeting around the exhibition space which brought together more than 100 exhibitors from over 45 countries.

SYMPHOS 2015 communications are also published for the third time by our partner ELSEVIER and are available on the Procedia engineering platform on the ScienceDirect website. The articles in this volume ranging all the production chain as Geology, Mining technologies, Digital Mining, Beneficiation, Slurry, Phosphoric and Sulfuric acid, High value elements, Phosphate Materials, Fertilizer, Nutrient Plant Interface, Agriculture. In this volume other themes are available as Energy, Environment, Modelisation, Corrosion & protection system, Industrial Management and Safety Management.

Innovation insights for Sustainable Agriculture was the over-arching theme of this second edition, with many conferences. The African scientists were more present in this third Edition. To highlight this central theme, we invited a distinguished speaker, Robert B Tucker, innovation visionary, who delivered a passionate address entitled “Innovation is everybody’s business”. As the title implies, innovation is an important tool for the long-term survival of companies.

We would like to express particular thanks to the CEO of OCP, Mr. Mostafa TERRAB, for his continued support and guidance.

We thank the technical, the organizing and the scientific committees, the authors and the speakers who contributed greatly to the success of this event.

Rachid Boulif
Guest Editor
SYMPHOS Project Manager

**International Symposium on Innovation and Technology in the Phosphate Industry
- SYMPHOS 2015 -**



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