



This special issue of the *Journal of Phase Equilibria and Diffusion* (JPED) contains selected papers presented at the First International Conference on Diffusion in Solids and Liquids (DSL-2005) held in Aveiro, Portugal, July 6-8, 2005.

The goal of the conference was to provide a unique opportunity to exchange information and to present the latest results, as well as review the relevant issues on diffusion research today. Young scientists were especially encouraged to attend the conference and to establish international networks with well-known scientists.

The large amount of presented papers emphasizes the considerable academic and industrial interest in the conference theme. More than 200 papers were presented by researchers from more than 40 countries. The organizers wish to thank the authors and delegates for their participation and cooperation, which made the conference possible.

This special issue contains the revised version of high-quality papers, which were submitted to the conference and published in the conference proceedings. I would like to express my sincere appreciation to the representatives of JPED and ASM International, in particular to Dr. John F. Smith, Editor of JPED, and Dr. A.C.M. Sousa, Associated Editor of JPED, who made this special issue possible.

Finally, I wish to express my gratitude to my colleagues and associates for their sustained assistance, help, and enthusiasm during the preparation of the conference.

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