

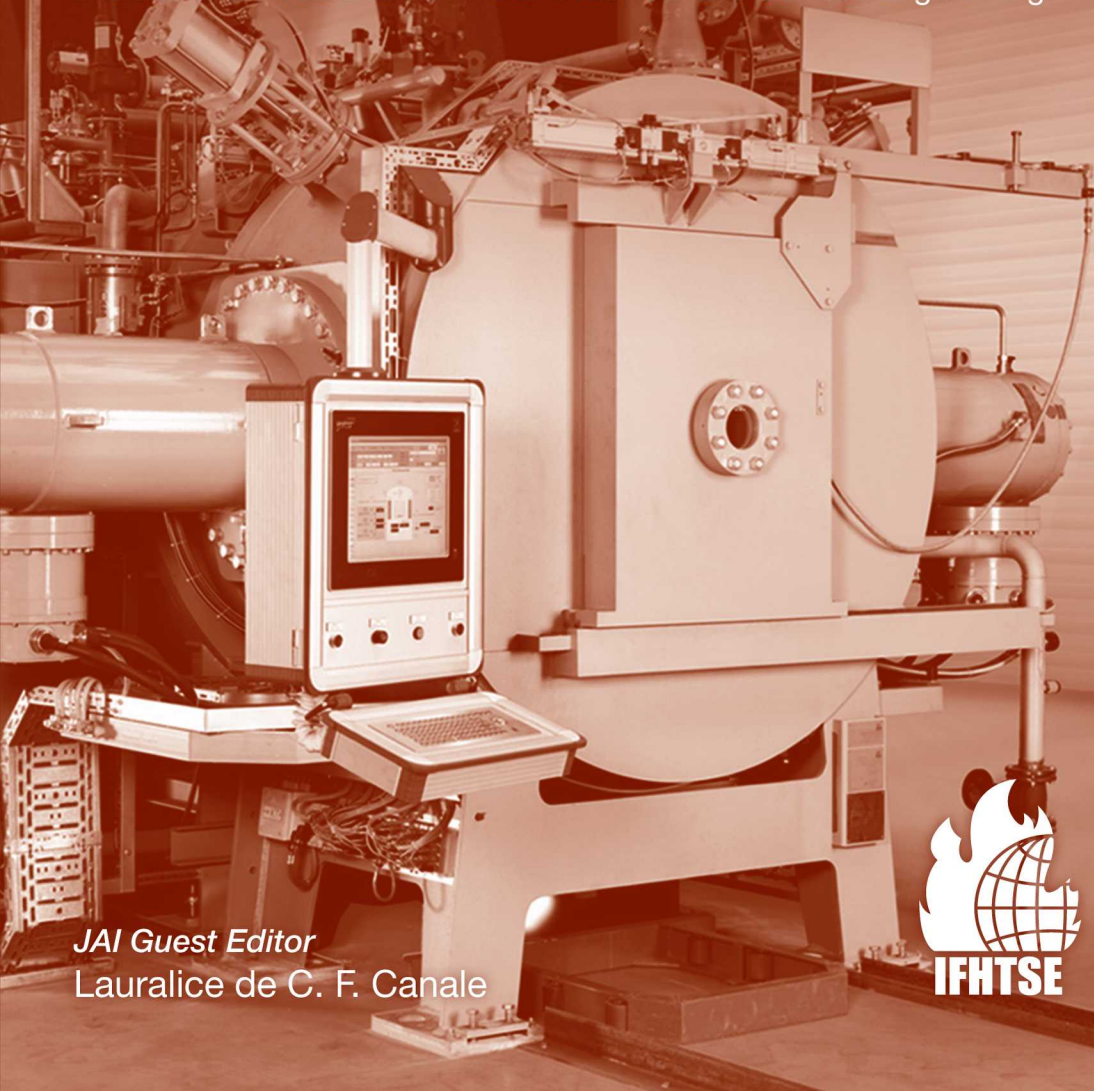
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Selected Technical Papers



STP 1532

18th International IFHTSE Congress

International Federation for Heat Treatment and Surface Engineering



JAI Guest Editor
Lauralice de C. F. Canale



**Journal of ASTM International
Selected Technical Papers STP1532
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Foreword

THIS COMPILATION OF THE *JOURNAL OF ASTM INTERNATIONAL (JAI)*, STP 1532, contains papers presented at the *18th International Federation for Heat Treatment and Surface Engineering Congress*, held in Rio de Janeiro, Brazil July 26–30, 2010. This congress was held in conjunction with the 65th ABM International Congress (Brazilian Metallurgical, Materials and Mining Association) and the 1st TMS/ABM International Congress (The Minerals, Metals & Materials Society).

The publication is sponsored by ASTM Committee D-2 on Petroleum Products and Lubricants and the International Federation for Heat Treatment and Surface Engineering (IFHTSE). The Guest Editor is Lauralice de C. F. Canale, EESC Universidade de São Paulo, Brazil.

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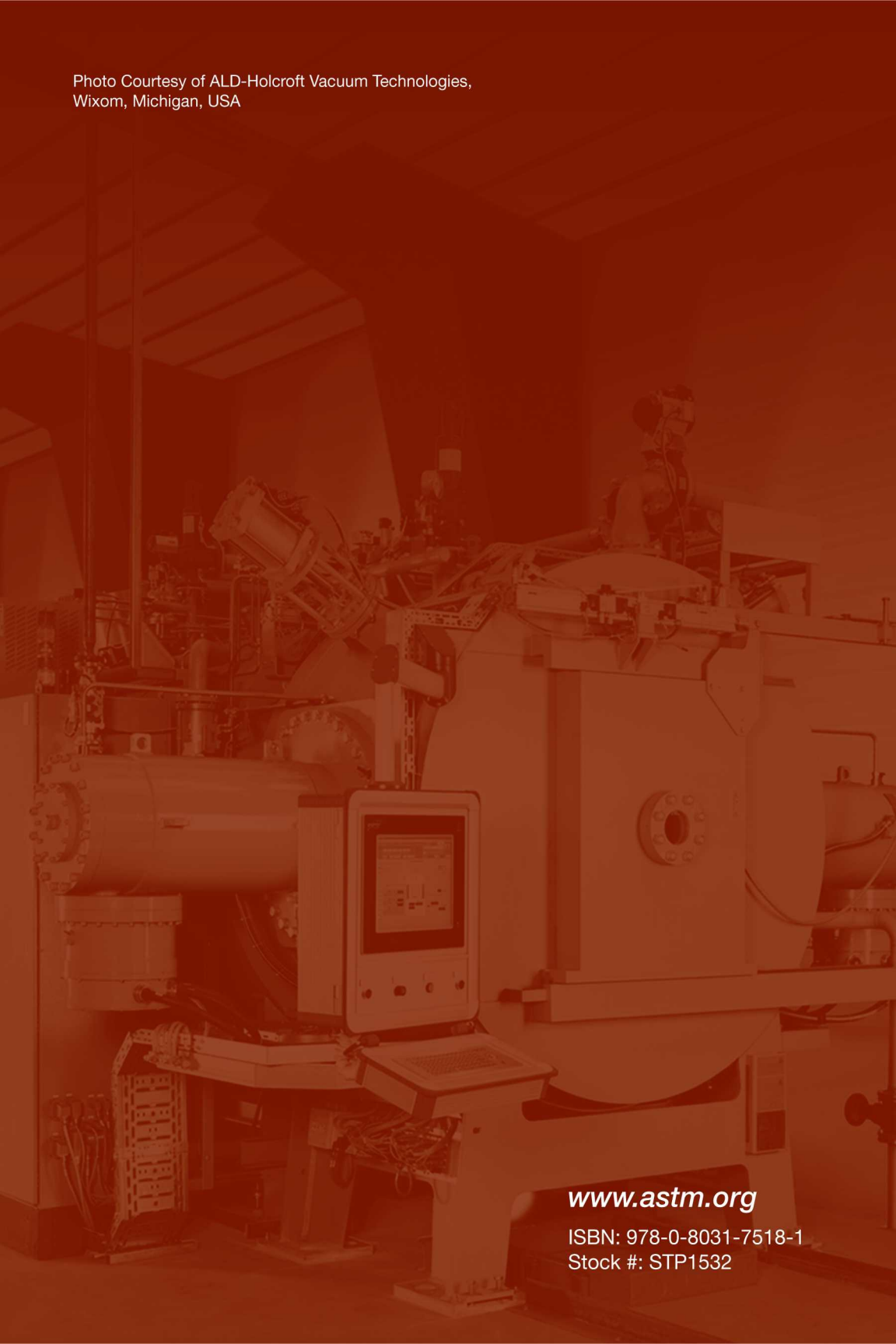
Overview

The 18th IFHTSE Conference in 2010, first time in Brazil, again gathered many engineers and scientists from international industry, research institutes and universities around the world for an open exchange of current results and investigations in the field of heat treatment and surface engineering. The conference had a ABM (Associação Brasileira de Metalurgia e Materiais) support to the planning and realization. This support was also offered by the industrial companies.

This special issue assembles 40 papers presented in this conference showing important findings regarding: New Materials, Quenchants and Quenching, Tribology, Modeling and Simulation, Plasma Technology, PVD and CVD, Materials Characterization, Cryogenic Treatments, Surface Hardening, Corrosion, Diffusion Process and Equipments.

Our special thanks to all the authors and co-authors for their excellent contribution promoting a successful conference permitting also the edition of this STP.

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