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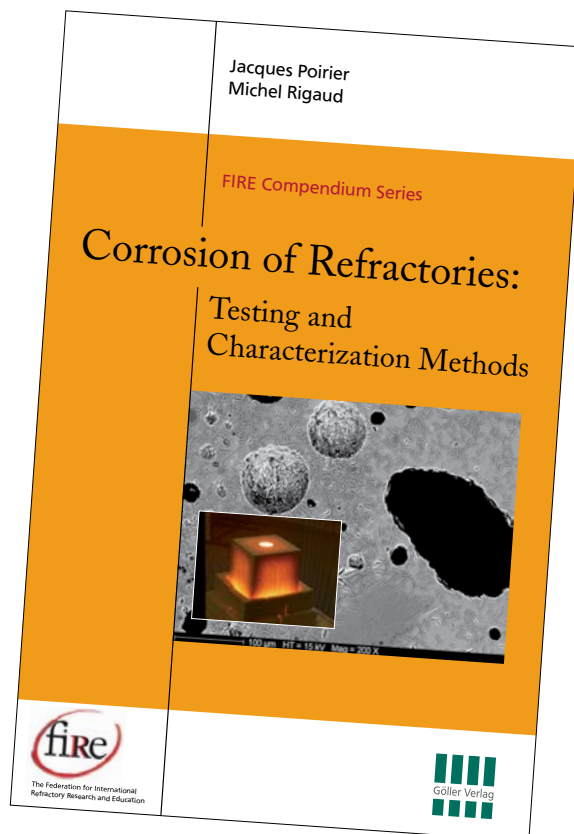
Corrosion of Refractories: Testing and Characterization Methods

Jacques Poirier and Michel Rigaud, **Editors**

This second book on the theme of corrosion, preceded by the one on The Fundamentals (2A) is to be followed by volume 2C on The Impact of Corrosion

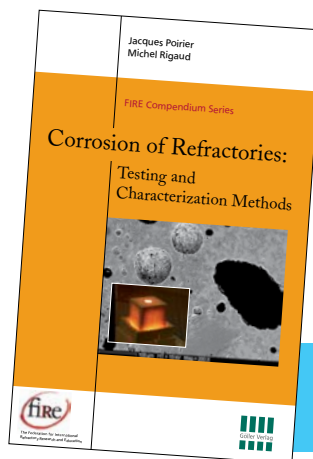
The three books are dedicated to a wide readership of refractory manufacturers and users of refractories from the industrial sectors of iron and steels, non-ferrous metals, aluminium, cement and lime, glass, chemical and petrochemical, power generation and waste incineration. The books are intending to serve not only as reference books but also to serve for educational purposes, hence should be of interest to academia, students and research engineers in this field of expertise

approx. 250 pages; price: EUR 75.00



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FIRE – Federation for International Refractory Research and Education

The Federation for International Refractory Research and Education, **FIRE** is a non-profit organisation established to promote refractory related research and education on a global basis. **FIRE** aims to stimulate and reinforce international education and research programmes for the refractory industry. Its strength is a unique grouping of expertise with 27 members drawn from all sectors of the refractory producing, supplying and consuming industries coupled with the world's leading academic institutions involved in refractory research. **FIRE** is committed to a series of research programmes, which are by definition pre-

competitive and are aimed at leveraging the research network capability of **FIRE** with contributions from both industrial and academic partners. They are designed to further refractory science and provide a basis for education through academic research. In order to further promote refractory research and education, **FIRE** is launching a compendium series in association and in partnership with Göller-Verlag publishing to make refractory science and technology available to academia, students, refractory raw material suppliers, producers, users and others interested in the refractory industry.



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FIRE Compendium Series

Volume 2B: Corrosion of Refractories – Testing and Characterization Methods

Jacques Poirier and Michel Rigaud

Wear by corrosion of refractory materials remain a major concern for plant operators, manufacturers of refractories, installers and refractory engineers involved in R&D and Education in this field of expertise.

This second volume on the theme of corrosion is yet to be followed by volume 2C : The Impact of Corrosion.

The aims are 1) to describe how to evaluate corrosion damages under laboratory conditions and to establish correlations with in-plant testing; 2) to describe how to determine the materials characteristics once corroded, introducing the description of in-situ and advanced methods, with a specific section on castables; 3) to review ways to minimize corrosion damages selecting the appropriate material and the best installation procedure and adopting key standard operating procedures; 4) to provide the tools to learn from theories, concepts and various disciplines.

Seven authors have been recruited by FIRE, to cover the subject in three main chapters:

I Testing Methods: 1.1 Laboratory Testing Methods: 1.1.1 Testing up to 1600C – P. Quirnbach; 1.1.2 Testing up to 2000C – P. Piluso 1.1.3 Testing Composite Materials – F. Rebillat 1.2 In-Plant testing vs Full Testing – M. Rigaud, T. Vert.

II Characterization Methods for Corroded Samples. 2.1 Traditional Methods – M. Rigaud; 2.2 In-situ and Advanced Methods – J. Poirier; 2.3 Specific Methods for Castables – C. Wormmeyer.

III Ways to Minimize Corrosion Damages. 3.1 Ways to Minimize L-S Attack – M. Rigaud; 3.2 Ways to minimize G-S Attack – J. Poirier; 3.3 Ways to learn from Experience – M. Rigaud

The content of the book has been outlined and reviewed by fellow experts (industrials and academics). It represents a major contribution to appreciate the impact of corrosion of refractories on the plant availability and quality of products