

Volume I

Progress on Safety of
Structures in Fire
结构火灾安全进展

Proceedings of the 8th International Conference on Structures in Fire

Edited by

Guo-Qiang LI

Venkatesh K. R. KODUR

Shou-Chao JIANG

Jian JIANG

Su-Wen CHEN

Guo-Biao LOU



同济大学出版社
TONGJI UNIVERSITY PRESS

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第八届结构火灾安全国际会议论文集

June 11-13, 2014, Shanghai, China

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图书在版编目(CIP)数据

结构火灾安全进展: 第八届结构火灾安全国际会议
论文集 = Structures in fire: proceedings of the
eighth international conference: 英文 / 李国强等
主编. -- 上海: 同济大学出版社, 2014.6
ISBN 978-7-5608-5494-6

I. ①结… II. ①李… III. ①防火—建筑结构—结构
设计—国际学术会议—文集—英文 IV. ①TU352.5-53

中国版本图书馆 CIP 数据核字(2014)第 088466 号

结构火灾安全进展——第八届结构火灾安全国际会议论文集

Structures in Fire — Proceedings of the 8th International Conference on Structures in Fire

李国强 Venkatesh K. R. KODUR 蒋首超 等 主编

责任编辑 季 慧 特约编辑 何亚楣 责任校对 徐春莲 封面设计 陈益平

出版发行 同济大学出版社 www.tongjipress.com.cn
(地址: 上海市四平路 1239 号 邮编: 200092 电话: 021-65985622)

经 销 全国各地新华书店

印 刷 同济大学印刷厂

开 本 787mm×1 092mm 1/16

印 张 84.5 (上、下册)

字 数 1 690 000 (上、下册)

版 次 2014 年 6 月第 1 版 2014 年 6 月第 1 次印刷

书 号 ISBN-978-7-5608-5494-6

定 价 1 000.00 元 (上、下册)

本书若有印装质量问题, 请向本社发行部调换

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ACKNOWLEDGEMENT

The conference organizers would like to thank the following sponsors for their much appreciated support to the Conference.

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PREFACE

Structural fire safety has raised growing concerns in the design of infrastructures. The "Structures in Fire" (SiF) specialized workshop series was conceived in the late 1990's and the "First International SiF workshop" was held in Denmark in 2000. The workshop was then held every two years until 2008 with the title changed from workshop to conference. Under this new framework the 5th-7th International Conference on SiF were held in Singapore (2008), USA (2010) and Switzerland (2012), respectively. The main mission of SiF conferences is to provide an opportunity for researchers and engineers to share their research, technology and expertise with their peers at an international forum.

Following the great success of previous workshops and conferences, Tongji University was selected to host the 8th International Conference on Structures in Fire SiF'14 in Shanghai on June 11-13, 2014.

The response to call for papers for SiF'14 was overwhelming and the Organizing Committee received more than 280 abstracts for this year's conference. As a first attempt for parallel sessions, a total of 155 papers from 29 countries were selected for publication in the conference proceedings. The papers are subdivided into 8 chapters with themes including *Applications of Structural Fire Safety Engineering, Steel Structures, Concrete Structures, Composite Structures, Timber Structures, Fire Protection Materials, Numerical Modeling, and any other topics*. It is hoped that the high quality of the technical papers presented in this proceedings will enable researchers and practitioners to develop greater insight of structural fire engineering, so that safer structures will be designed for fire-resistance.

We would like to thank all the members of the Scientific Committee for reviewing the abstracts within an incredibly short period of time, in particular the support of Professors Bin Zhao, Kang Hai Tan, Mario Fontana, Asif Usmani, Guo Qiang Li and Paulo Vila Real, taking the burden of the track leaders for the Scientific Committee. Our sincere appreciation must be presented to the SiF Steering Committee for guiding the review process and for providing direction to the successful organization of this conference. Our sincere thanks also go to all authors—the quality of the book is just the corollary of the high standard of their contributions and research activity. Finally, we would like to appreciate the effort and extraordinary support provided by all the members of the Organizing Committee, especially the staff at Tongji University.

Guo-Qiang LI

Chairman of Organizing Committee

Venkatesh K.R. KODUR

Chairman of Scientific Committee

Shanghai, June 2014

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