Due to the low manufacturing cost and wide range of performances, polymers and polymer composites are increasingly important in our everyday life and can be found all around us. Many of these polymer materials are, however, highly flammable, which poses increased fire risk to people’s lives and our society. The flammability of polymers and polymer composites is a serious issue and severely limits their applications. It has been identified as the root cause of many severe fire incidents, which cause over 40,000 deaths worldwide every year with the total fire loss around 1% of the gross domestic products of the world. Adding flame retardants has been approved as an effective strategy to address the fire issues associated with these flammable polymers and composites. Development of flame retardants and flame-retardant polymers/composites has become an important topic for composite materials and their applications.

*Composites Part B: Engineering* has recently identified flame retardants and flame-retardant polymer/composites as one of its 20 focused topics for the journal. This Special Issue is purposely organised to announce this decision. We want our flame retardants research community to be aware that *Composites Part B: Engineering* is now dedicated to publishing the latest progress on flame retardants and flame-retardant polymer composites.

We are pleased to have four world renowned top scientists on flame retardants as our Guest Editors. The Special Issue will feature the latest technological and science advances and also the future challenges and opportunities on flame retardant materials. The topics focus on ecofriendly flame retardants, flame retardant polymer composites, new flame retardancy technologies, characterisation and evaluation of fire performances and smoke toxicity, and fire modelling/simulations.

The Special Issue aims to provide an excellent platform to share the latest advances in this research field. We anticipate it to be of great value to our researchers, engineers and government policy makers.

### Topics of Interest

1. Flame Retardants
2. Flame Retardant Polymer/Composites
3. Flame Retardant Technologies
4. Characterisation and Evaluation of Fire Performance and Smoke Toxicity
5. Model/Simulation for Polymer Degradation and Combustion
6. Others

Full research papers and review articles are all welcome

### Important Dates

Submission opening: **4 April 2019**  
Paper submission deadline: **31 July 2019**  
Final decision notification: **30 September 2019**
Submission Instructions

This Special Issue solicits both original research and review studies related to FR&FRPC. All submitted papers must be clearly written in excellent English and contain original or review work, which has not been published or is currently under review by any other journals or conferences. Papers must not exceed 25 pages including figures, tables, and references. A detailed submission guideline is available as "Guide to Authors" at the journal website: www.journals.elsevier.com/composites-part-b-engineering/.

All manuscripts and any supplementary material should be submitted through Elsevier Editorial System by click “Submit Your Paper” in the journal website. When instructed to “Start New Submission”, authors must select "VSI: Flame Retardants" when they reach the "Select Issue Type".

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