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# **Glass engineering!**

J. H. Nielsen · J. Belis · C. Louter · M. Overend · J. Schneider

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The glass engineering community is a relatively young but active community within the architectural and civil engineering domain. Furthermore, the ever increasing number of people carrying out interesting glass engineering projects, using glass in spectacular ways together with an increasing number of universities and companies recognizing the field and support it through courses, projects and research lead to an expansion in our field. The enthusiastic and collaborative spirit, which exists within the glass engineering community, supports this and is something we should be proud of

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Institute of Structural Mechanics and Design, Technische Universität Darmstadt, Darmstadt, Germany e-mail: schneider@ismd.tu-darmstadt.de and utilize to further increase the interests and progress in our field.

The enthusiasm in the glass engineering community also reflects on this journal. Due to the increased interest in Glass Structures and Engineering, we have decided to increase the yearly number of issues from two to three and we are proud to present the first 3rd issue of the journal to be published. This issue of Glass Structures and Engineering brings you eight high quality papers concerned with interesting specialties in the field of glass engineering.

In this issue we have four papers concerning the theme of nickel sulphide inclusions. Three of them are parts of a series concerning work performed by Dr. A. Kasper at the Saint Gobain research center, (Kasper et al. 2018; Kasper 2018a, b). Nickel sulphide inclusions were a major concern for many years and led to the heat soak method, which considerably reduced the number of spontaneous failure of tempered glass. A statistical evaluation of the heat soak method is the theme for the fourth paper of this issue (Bonati et al. 2019).

Another important area for glass engineering is the use of polymers for e.g. laminating glass or creating connections. The paper by Botz et al. (2019) experimentally investigates the time dependent behavior of PVB (polyvinyl butyral) under varying temperature and humidity conditions. The article written by Angelides et al. (2019) sets up a theoretical model for evaluating the effect of high strain rates in laminated glass applicable to e.g. blast loads. As a third paper on laminated glass (D'Ambrosio et al. 2019) investigates the postbreakage stiffness and provides a simple engineering tool for evaluating the post-critical response of in-plane loaded laminated glass. Finally this issue includes a paper by Drass et al. (2019) who discusses the stress whitening effect in structural silicone.

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