Construction Materials
Volume 170 Issue CM6
Editorial
Crofts

Proceedings of the Institution of Civil Engineers
Construction Materials 170 December 2017 Issue CM6
Pages 271–272 http://dx.doi.org/10.1680/jcoma.2017.170.6.271

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Editorial

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It is a great pleasure to introduce this issue, the last of 2017, with my first editorial as a member of the Editorial Advisory Panel of *Construction Materials*. While this issue includes papers generally around the subject of that ubiquitous construction material, concrete, this year has seen a range of materials covered by this journal.

The year began with the second instalment of papers on the theme of earthen construction and a second themed issue was published in August, focussing on asphalt. The general issues have included papers on materials as diverse as cooking oil (Vu *et al*., 2017), foam insulation (Densley Tingley *et al*., 2017), epoxy resin-soil-cement mixtures (Anagnostopoulos, 2017), Timber (Foster and Ramage, 2017), sugarcane bagasse bricks (Madurwar and Ralegaonkar, 2017) and bitumen coatings (Abubaker *et al*., 2017), as well as a range of contributions covering concrete, cementitious mortar and related materials and a book review relating to centrifuge monitoring for civil engineers.

The contributions on cementitious materials have included a discussion on corrosion protection (Dodds *et al*., 2017), bubble stabilisation in foamed mortars (Hussein *et al*., 2017), crack width estimation (Hover *et al*., 2017) and optimisation of construction using SCC (Rich *et al*., 2017).

This final issue of the year includes three contributions generally covering cementitious materials. These cover a range of applications, from reuse of crushed concrete as aggregate in road construction to enhanced durability by protecting reinforcement and enhancement of mortar performance by modification with nanoparticles.

The first article (Dettenborn *et al*., 2017) presents an analysis of the long term behaviour of crushed concrete aggregate in road construction. This study utilises almost 20 years of data from trial sections of road constructed in Finland using crushed concrete aggregate in the base and subbase courses. The data analysed showed that the trial sections built using 50 mm maximum sized crushed concrete aggregate gained 10–25% more bearing capacity in 13–15 years than did reference pavement sections built using crushed rock aggregates.

The second article (Książek, 2017) presents the results of research and analyses into the protection of reinforcing steel and concrete itself using polymer-sulfur composites. Initial analyses allowed the optimisation of composition for further research. Adhesion and durability tests have been undertaken in a range of environments, finding that the corrosion rate of protected reinforcement was reduced compared to unprotected and that these composites can have a role in protecting concrete from corrosion.

The final paper for this year (Kazempour *et al*., 2017) presents findings from a study into the alleviation of the effects of low temperatures on masonry construction using nano-alumina and nano-silica as additions in mortar mixtures for joints. The mortars were mixed and cured at 5°C and a range of properties assessed at different ages. The study found that the type of nanoparticle used and its dosage had pronounced effects on the results of the various tests. The overall trends indicate that a 6% addition of the nanoparticles can lessen the adverse impacts of low temperature on masonry mortars, including on the rate of hardening and kinetics of hydration.

On behalf of the Editorial Board, I hope that this issue of *Construction Materials* will be of interest and look forward to Volume 171 in 2018.

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