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Mineral Bone Cements: Current Status and Future Prospects

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Deadline for manuscript submissions: closed (31 December 2019)

Message from the Guest Editors

Self-setting mineral bone cements, mostly based on calcium and magnesium phosphates, but also silicate phases, are important bone replacement materials, successfully used in clinics for many years. In the last decade, significant progress was achieved—for example, concerning the increase in the mechanical strength by fibre reinforcement, modification with biologically-active metal ions, improved drug loading and release capabilities, the development of novel cements with higher degradation ability, and successful utilization of such cements in additive manufacturing technologies. In addition, some composite materials were presented, e.g., by combining advantages of fast-degrading the silicates with mechanically more stable calcium phosphates or the simultaneous formation of a hydrogel and cement phase (dual-setting approach) to create ductile cement-polymer composites.

Submitted manuscripts may cover all aspects, ranging from basic investigations into cement chemistry to novel processing approaches, cement modifications to adjust material and biological properties and *in vitro* and *in vivo* testing of the materials.

Specialsue



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Message from the Editor-in-Chief

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