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# Polyelectrolytes Phase Behaviour in Multicomponent Mixtures, Composite Materials and Actuators

Guest Editor:

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Deadline for manuscript submissions: closed (30 September 2022)

### Message from the Guest Editor

Because of their physicochemical properties and their unique phase behaviour, polyelectrolytes play a key technological role. Unlike neutral polymers, the behaviour of polyelectrolytes is dominated by long-range charge interactions that can be tuned in range and strength by modifying the environmental conditions. These interactions are used, for instance, to stabilize industrial formulations and to assemble composite materials, while the responsiveness of polyelectrolytes to external cues makes them suitable candidates for the preparation of soft actuators and smart materials.

Although much is known about polyelectrolytes in solution, understanding their phase behaviour in multicomponent mixtures is crucial for the full exploitation of their unique properties. This Special Issue collects recent theoretical and experimental investigations as well as literature reviews aimed at understanding and applying the phase behaviour of polyelectrolytes in mixtures of polymers and colloids in both composite materials and soft actuators.



mdpi.com/si/114507







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# **Editor-in-Chief**

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### Message from the Editor-in-Chief

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