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# Complex Concentrated Alloys for Thin Films: Applications and Properties

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## **Message from the Guest Editors**

Complex concentrated alloys (CCAs), also called multiprincipal alloys (MPAs) or high-entropy alloys (HEAs). represent a distinct design concept in which the component elements are present in a high proportion, forming microstructures predominantly rich in solid solutions. The uniqueness of the concept is provided by the hypothesis that the high mixing entropy determines the prevalent formation of solid solutions instead of intermetallic compounds. Complex concentrated alloys are no longer a novelty from a scientific point of view, but present significant difficulties regarding the understanding of the mechanisms underlying the microstructure formation and the properties they develop. The present Special Issue aims to offer the opportunity to publish research results of great interest in the field of the deposition of complex concentrated alloys. New alloy compositions or innovative synthesis methods are welcome, as well as the presentation of modeling and simulation concepts for deposition processes, in various conditions or geometries. Structure-process-property correlations are crucial for the design of future CCA thin films











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### **Message from the Editor-in-Chief**

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