


High-Temperature Protective Coatings

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Received: 9 February 2017 / Published online: 16 March 2017
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The use of coatings is often critical to extending the lifetime of high-temperature materials or increasing the capability of lower cost materials to higher temperatures, longer lifetimes or more aggressive environments. Coatings also allow for a wide range of compositions that may not be possible or practical in bulk form. Considerable research is continually devoted to the evaluation of new coating strategies and better understanding of coating interactions both with the environment and the substrate.

The papers in this special issue cover a wide range of applications with two major themes: (1) the performance of thermal barrier coatings (TBC) including new deposition methods and performance in the presence of deposits and (2) coatings for steels to enable higher temperature or more aggressive environments including boiler applications on both the fireside and steamside and in fuel cell applications.

The papers stem from presentations at the 9th International Symposium on High Temperature Corrosion and Protection of Materials (HTCPM2016), which was held at Les Embiez, France, on May 15–20, 2016.

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