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Perspective Article

Analysis of polymer/oxide interfaces under ambient conditions – An experimental perspective

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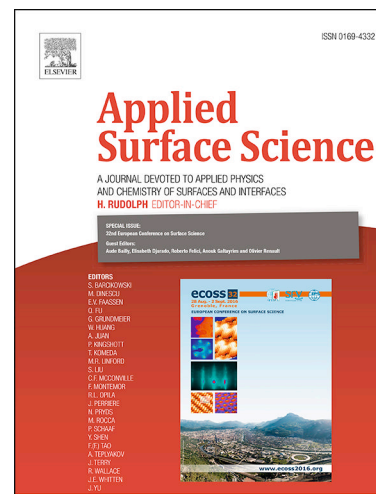
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**Perspective article****“Analysis of polymer/oxide interfaces under ambient conditions – An experimental perspective”**

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**ABSTRACT:**

In many different hybrid materials and materials composites polymers adhere to bulk oxides or oxide covered metal. The formed polymer/oxide interfaces are of crucial importance for the functionality and durability of such complex materials. Especially, under humid and corrosive conditions such interfaces tend to degrade due to permeability of polymers for water, the high adsorption energy of water on oxide surfaces and even corrosion processes of the metal. Different experimental studies considered such interfaces ranging from spectroscopy to electrochemical analysis. However, it is still a challenge to understand the complex interaction especially under non-ideal ambient conditions. The perspective article presents an overview on the existing experimental approaches and considers most recent experimental developments with regard to their potential applications in the area of polymer/oxide interfaces in the future.

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