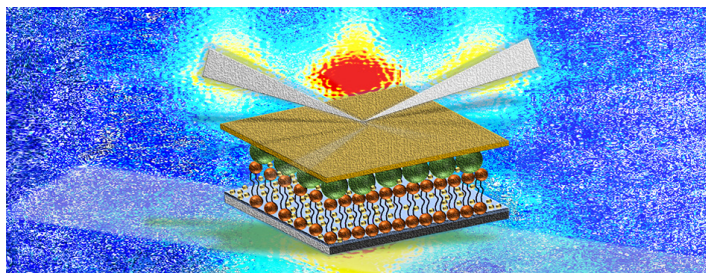


# JCNS Workshop 2024, Trends and Perspectives in Neutron Scattering: Functional Interfaces



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## Innovation in automotive coatings

*Tuesday, October 8, 2024 3:45 PM (30 minutes)*

A coating in general serves two purposes, protection of the coated substrate and decoration of the coated object. Modern automotive coatings consist of multiple layers with each layer specialized to provide protective or appearance properties to the overall coating. The formulation of a single layer can easily contain dozens of individual components. The main component of an organic coating however is a mixture of polymers called binder or resin in coating technology. Therefore, polymer science has a major impact on the performance and innovation of organic coatings. The physical and chemical properties of the binders provide the required properties for e.g. corrosion or physical protection, chemical resistance or dispersion and orientation of embedded pigments. It could be argued that polymers are the main influence on the final properties of the coating. The current interest in E-mobility and focus on environmental performance has shifted the traditional topics of coatings research in recent years. Restriction to components currently used in coatings technology drive innovation towards alternative raw materials and innovative curing chemistry. The bioeconomy has increased research into biobased feedstocks and the need for energy efficient systems has renewed the interest in functional surfaces.

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