**Dissolution-driven environmental effects of antimicrobial coatings**

Antimicrobial coatings (AMC) are surface layers of material designed to prevent growth of bacteria, yeast or fungi. They are widely used in diverse applications, for example in healthcare settings (e.g. catheters, medical devices, trays, etc.), air conditioning units, antimicrobial textiles, food packaging, and many other. Their application and importance is expected to grow in all areas, as they can serve as a valuable tool in combating antibiotic-resistant pathogens that pose a serious problem worldwide. The most commonly used antimicrobial component in coatings is silver, in the form of various silver compounds or nanoparticles, but many other materials are also in use, such as copper, zinc, various organic compounds and polymers. Despite significant increase in their use over the last 20 years, the environmental effects of AMCs are poorly understood due to the variety of used antimicrobial agents, as well as due to diversity of AMC applications. As a part of COST action CA15114, a Short Term Scientific Mission was organized at the Institute for Chemical Physics and Biophysics in Tallinn, Estonia, in order to review the known environmental effects of AMCs and to determine their impact on ecosystems.