

**Dr Jan-Olov Nilsson** has currently a position as senior specialist in surface treatment and corrosion at Hydro Extruded Solutions, Innovation and Technology in Finspång Sweden. This is the main research laboratory for Hydro Extruded Solutions globally, formerly known as Sapa. Hydro Extruded Solutions is now part of a fully integrated aluminium company with 35,000 employees in 40 countries on all continents. Hydro delivers aluminium products and solutions from mine to consumer and recycling.

Jan-Olov has worked in Hydro for 24 years, where of 22 years as Manager for the core development area Surface Treatment and Corrosion. In this position he has had the responsibility for the laboratory work regarding surface treatment, corrosion and customer support in all kinds of surface related problems. Hydro Extruded Solutions delivers tailored components and solutions to all industries, from automotive and mass transportation to building and construction, electronics, offshore and maritime.

In his work within Hydro he has had several collaborations with external partners at universities, institutes and private companies. The main collaboration has been with Manchester University, in projects related to pre-treatments, surface coatings, anodising and corrosion. Other collaborations have been with Lund university, physics department for synchrotron radiation (Maxlab IV) and the Royal University of Technology in Stockholm. Here various types of photoelectron spectroscopy, X-ray diffraction have been used in combination with electrochemical studies of initial oxide formation during anodising and pre-treatments for organic coatings and adhesives. Before his position at Hydro he worked as senior researcher in Surface Technology at the R&D department in the Swedish Steel company SSAB.

Jan-Olov got his Ph.D. in Surface Physics and Chemistry, Linköping University, 1989. The main area of his research were: studies of organic molecules, oligomers and polymers adsorbed on metal substrates. For these studies he used a special designed ultra-high vacuum (UHV) system for in-situ sample preparation, equipped with instrument for photoelectron spectroscopy using both X-ray and UV as photon source. The title of the thesis was: Studies of electronic structure of some organic molecular solids, molecular adsorbates and polymers using Photoelectron, Infrared and Optical Absorption Spectroscopy.

