

DocMASE Project Proposal 2011-01

Project Title	<i>Effect of Nitrogen Vacancies and interfaces on thermal stability of Ti-Al-N thin films</i>
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Second Univ. and Advisor	Linköping University (LiU) (Linköping, SWEDEN) Prof. Magnus ODEN
Associated Partner(s)	Seco Tools AB (Sweden)
Project Description	<i>The aim of the project is to study the influence of Nitrogen vacancies and interfaces on the thermal stability of cathodic arc evaporated Ti-Al-N solid solutions coatings. Its effect on the phase and microstructure evolution by increasing temperature, specifically effect on Spinodal decomposition and the formation of new phases, like MAX phases. The main approach is an experimental chemical and microstructure characterization via atom probe tomography, x-ray diffractometry, scanning- and transmission electron microscopy and scanning differential calorimetry.</i>