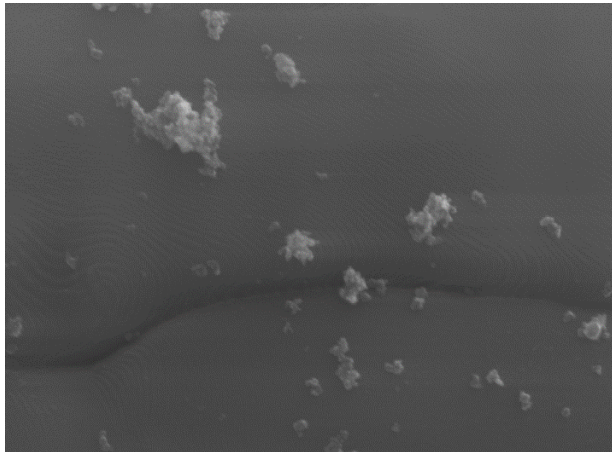


**Subject:** Relevance of Chromium(VI)-Compounds in  
welding fumes of high-alloyed steels



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**Type of thesis:**

Bachelorthesis	X	Experiments	(X)
Projectthesis	X	Construction	
Minithesis		Theoretical	X
Masterthesis	X	Literature research	X

**Beginning:** now

**Department:**

Arc welding

**Our profile:**

For almost 60 years now the Welding and Joining Institute (ISF) of RWTH Aachen University has been doing research work about modern welding and joining technologies. The work of the ISF comprises almost all industrially relevant, non-detachable joining methods.

**Description:**

Arc welding inevitably leads to welding fumes, although the extent of emission generation and the composition of the welding fumes can vary greatly depending on the method, the base material and the additional material.

The focus of many investigations at the welding process of high-alloyed chromium-nickel steels is in particular on the Cr (VI) compounds because of their harmful effects on health.

In the sense of continually improving environmental protection and increasing work safety, it is of great importance to describe the mechanisms of origin as well as the possible influences on the formation of these compounds. This thesis is intended to contribute to this.

**Your profile:**

Student of mechanical engineering, chemistry, physics, materials engineering, biology or related studies. Knowledge of welding technology is not a prerequisite. The work can be supplemented by an experimental part.

If you have any questions, don't hesitate to contact me!

Best regards,  
Martin