

# Masterarbeit

## Investigation of Thermo-physical Properties of the Slags Produced through Electro-Slag-Remelting Process (ESR)

**background:** Via Electro-Slag-Remelting process, the modern high performance materials, such as special steels, super alloys and Titanium alloys for the aerospace industry are manufactured. The material is thereby remelted and refined in a liquid slag partially under a protection atmosphere.

**Task:** After the appropriate literature review and within an independent experimental work, the density and Viscosity of common ESR-slags up to the temperature of 1700°C via “Archimedes”- and “Oscillation” method shall be measured. (Both instruments are present at IME)

**Duration:** 6 Monate (immediately)

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**Reliability, interest, very good English knowledge (both writing and speaking), to be always On-time, to work independent, to be accurate during the experiments are highly required !!!**