## **MASTER'S THESIS SUMMARY**

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## Title of the master's topic (One page maximum)

The current economy is based on fossil fuels which will eventually run out and whose consumption is the source of greenhouse gas emissions. For several decades now, an energy transition towards alternative energy resources, less polluting and more respectful of the environment, has been underway. Thus, green hydrogen, which is an energy vector, is seen as a good alternative.

In the interest of development in harmony with nature, the production of green or renewable hydrogen from the electrolysis of water or from biomass/bioenergy (biohydrogen) is favoured. The bioproduction of hydrogen, the most recent among the techniques for producing green hydrogen, seems very promising thanks to the mild operating conditions with acceptable conversion rates. But, to be economically viable, biohydrogen production technology must allow industrial production of hydrogen. Also, it is essential to conduct increasingly in-depth research with the aim to improve rate of biohydrogen synthesis processes.

It is within this framework that two PhD study scholarships are offered at the University of Rostock in Germany.

Key Words (5 maximum) : energy resources, green hydrogen,