



**Universidade do Minho**

Escola de Engenharia

Diana Zita Machado de Sousa

**Ecology and Physiology of  
Anaerobic Microbial Communities that  
Degrade Long Chain Fatty Acids**

Doctoral Dissertation for PhD degree in  
Chemical and Biological Engineering

Supervisors of the thesis:

**Doctor Maria Madalena dos Santos Alves**

**Professor Doctor Alfons J.M. Stams**

**Doctor Hauke Smidt**

December 2006