

Abatement and analysis of greenhouse gas emissions

The objective of this research is to generate new chemical engineering analyzing tools and models to identify and to quantify detailed GHG abatement options for processes and products in manufacturing sectors. Technological or engineering solutions without economic feasibility are not always so evident and viable. Our approach to GHG management is a combination of climate change management matrix, life cycle analysis and uniform capital recovery factor for comparing production and abatement costs

The effect of raw and energy production in biofuel production on overall sustainability using *emergy* analysis has been investigated. Emergy analysis is a method for environmental accounting, which presents the solar energy footprint of products.

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Project-related publications:

Kajaste, R., Oinas. P. (2019) Recycling bulk chemicals, ERSCP Conference, 15-18.10.2019, Barcelona, Spain.

Kajaste, R., Hurme, M., Oinas. P. (2018) Methanol - Managing greenhouse gas emissions in the production chain by optimizing the resource base. AIMS Energy 6(6), 1074.

