

INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

"KEY ELEMENTS FOR A SUSTAINABLE WORLD: ENERGY, WATER AND CLIMATE CHANGE"

## Environmental Accounting in Emergy for a House Construction

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## Abstract

The present study uses the environmental accounting in emergy to analyze a house construction. The energy and materials inflows are evaluated for each stage of the construction. The final emergy flow for the building manufacturing process is 2,07E+17 sej (solar energy joules). The results highlight the environmental cost relative to the different constitutive parts of the building as groundwork, building frame, walls and covering. Materials that are the major emergy contributors are cement, sand and stone.

Keywords: Emergy; environmental accounting; building manufacturing.