

Sustainable Nanotechnology Conference 2015



Contribution ID: 25

Type: **not specified**

Brazilian scenario in sustainable nanotechnology

Monday, March 9, 2015 11:50 AM (20 minutes)

Nanoscale materials are used in diverse areas, and the huge potential of these technologies resulted in a considerable growth in investment in research and development worldwide. Since the 2000s the Brazilian government has set a national program to develop and disseminate nanotechnology. Brazil was the 25th country in the world ranking of publications in this field in 2006. The purpose of this work is to evaluate the scientific production related to sustainable nanotechnology in Brazil, through conducting a systematic literature review until December 2014. The criteria involved the establishment of keywords and search platforms. The articles were classified into sustainable nanotechnology (13) and life cycle assessment (2). Literature highlights that after 2010 the discussion regarding the environmental impacts of the nanotechnology has increased. The environmental aspect was usually discussed in the field of risk assessment, but few studies aimed to quantify the impacts. Two studies of life cycle assessment were identified, both cradle to gate and focused in the inventory of the production of the nanomaterial in Brazil. This paper sets out to stress that as discussed worldwide, also in Brazil the internationally standardized method of LCA can help identify opportunities for reducing environmental impacts in the entire life cycle of nanoproducts.

Primary authors: PEREIRA CERIZE, Natalia Neto (IPT, Brazil); HORTA ARDUIN, Rachel (IPT, Brazil)

Co-author: ECHEVENGUA TEIXEIRA, Claudia (IPT / Uninove)

Presenter: HORTA ARDUIN, Rachel (IPT, Brazil)

Session Classification: 1C Life Cycle Thinking & LCA

Track Classification: Parallel session 1C: Life Cycle Thinking & LCA