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## **HELIX SPIN ECONOMY AND PLASMA WASTE RECOVERY IN CONSTRUCTION AND BUILDING MATERIALS INDUSTRY**

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### **Abstract**

The circular economy is a development model that redefines economic growth by decoupling it from the consumption of resources (especially non-renewable) and conveys waste back into productive activities, as raw materials for other production circuits, thus helping the increase of resource efficiency, and reducing the impact of economic activity in the environment. As one of the main aspects addressed by the circular economy concept, waste recycling can limit sometimes the practical and conceptual nature of this system.

Starting from the concept of circular economy we propose a new concept called helix spin economy, in which the plasma processing technologies applied to industrial and municipal waste have a special importance. Plasma gasification of municipal waste leads to the production of valuable and safe outcomes for the environment, such as syngas, metals and glassy rocks. As for assessing the modeling of the complex economic processes that govern the helix spin economy, the research team considers fuzzy mathematics and the theory of uncertainty.

*Key words:* fuzzy mathematics, helix spin economy, hydrogen plasma gasification, municipal waste

*Received: June, 2020; Revised final: February, 2021; Accepted: March, 2021; Published in final edited form: April, 2021*

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