



Methods for Making Glasses from Organic Waste Food Streams

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Summary: A renewable method for making commercial and new glasses from organic waste products

Description: Current glass products can contain up to 20-30% recycled glass, while the remaining materials are directly mined from the Earth's crust. In this work, a renewable method for making a variety of commercial and new glasses from organic waste products has been developed. In this method, the necessary inorganic compounds are extracted from organic waste streams (e.g., food and agriculture waste streams) that are high in inorganic oxide content. Food wastes are dried in an oven and then heated to a temperature at which the undesired components (e.g., water, carbon, and nitrogen) are removed. Typically, a secondary heat treatment process produces the minerals desired for glass batching. These glasses have the same, or improved physical, chemical, and mechanical properties as glasses made from mined minerals. However, the methodology disclosed in this invention will produce a renewable and sustainable product.

Main Advantages of this Invention:

- Reduced environmental impact
- Potential for improved properties

Potential Areas of Application:

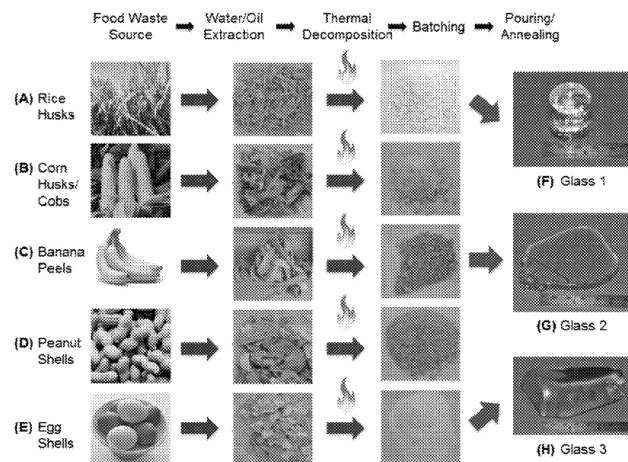
- Glass and ceramics manufacturing

ID number: # 14001

Intellectual Property Status: US utility application pending (#14/477,458).

Publication Link: http://ceramics.org/wp-content/uploads/2014/07/Cover-Story_Aug14.pdf

Opportunity: Seeking an exclusive or non-exclusive licensee for implementation of this technology.



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