

Atmospheric Pressure Plasma Carbonization of Pre-Stabilized/Oxidized Precursors

Disclosure Number

201303164

Technology Summary

RMX and ORNL have completed a feasibility study of a low cost carbonization method. This technique utilized RMX's proprietary atmospheric pressure plasma technology coupled with an electromagnetic heating technique that is extremely energy efficient. Results confirmed that, at the very least, this technique accomplishes "low temperature" carbonization (conventionally in the 500-700 °C range of processing). During this study, a variety of techniques and equipment were evaluated, and a final design was determined at the end of the project. The final design has been termed the Close-Proximity Plasma Electromagnetic-Heating (CP2E) carbonization technique. The feasibility study was deemed successful, and a follow-up developmental project will be pursued.

Inventor

PAULAUSKAS, FELIX L
Materials Science and Technology Div

Licensing Contact

FRANCO, NESTOR E
UT-Battelle, LLC
Oak Ridge National Laboratory
6196
1 Bethel Valley Road
Oak Ridge, TN 37831

Office Phone: (865) 574-0534

E-Mail: FRANCONE@ORNL.GOV