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**S-130,236**

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Name: United States Department of Energy

Internal Address: \_\_\_\_\_

Street Address: 1000 Independence Ave. S.W.

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**4. Application or patent number(s):**

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

Serial No. 13/642,052

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

**5. Name and address to whom correspondence concerning document should be mailed:**

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**6. Total number of applications and patents involved: 1**

**7. Total fee (37 CFR 1.21(h) & 3.41) \$ \_\_\_\_\_**

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**PATENT**

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Invention Title: Novel method to produce highly digestible pretreated lignocellulosic biomass and valuable extractives using anhydrous liquid ammonia

Inventor(s): Bruce E Dale, Venkatesh Balan, Albert M Cheh, Leonardo Sousa, Shishir P Chundawat

U.S. Filing/Issue Date: December 17, 2012

Patent or Application Serial No.: 13/642,052

Grant/Contract Number(s): DE-FC02-07ER64494

Foreign Applications filed/intended in (countries): AU, BR, CA, CN, EP, IN, MX

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The Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

Signed this 25<sup>th</sup> day of November, 20 13.

By Richard W. Chylla  
(Institutional Business Official)

  
(Signature)

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