

## Recyclable Acid-Polyethylene grafted Fiber

### Disclosure Number

201303052

### Technology Summary

A co-grafting of vinyl sulfonic acid or vinylphosphonic acid monomers on polyethylene (PE) was studied for the heterogeneous catalysis of fructose dehydration into 5-hydroxymethylfurfural (HMF) solely in water. The co-polymer exhibited an excellent catalytic activity and maintained a high yield after being recycled. In addition, the heterogeneous catalyst is easily separated from the reaction and reduces the amount of harmful waste that can be that can be released into the environment.

### Inventor

JANKE, CHRISTOPHER J

Materials Science and Technology Div

### Licensing Contact

CALDWELL, JENNIFER T

Rm 137, Bldg 4500N

1 Bethel Valley Road 6196

Oak Ridge, TN 37831

Office Phone: (865) 574-4180

E-Mail: CALDWELLJT@ORNL.GOV

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