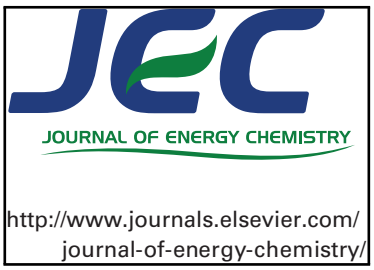

Removal of biomass tar by steam reforming over calcined scallop shell supported Cu catalysts

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Highlights

- Calcined waste scallop shell supported copper catalyst is prepared for steam reforming of biomass tar.
- Cu/CS catalyst exhibits higher catalytic activity than Cu on commercial CaO and Al_2O_3.
- Formation of calcium copper oxide phase stabilizes Cu species and provides new active sites.
- The addition of a small amount of Co is found to be able to stabilize the activity of Cu/CS catalyst.