1. Main research results

1) Carbon based solid acid with 4 mmol g\(^{-1}\) of SO\(_3\)H groups has been synthesized, exhibiting remarkable catalytic performance.

2) It was found that Phosphoric acid/niobic acid functions as an efficient solid catalyst for the conversion of glucose into 5-hydroxymethylfurfural.

3) A hydrogenation catalyst able to decompose lignin into water soluble aromatic compounds has been synthesized.

2. Original papers


8) Satoshi Suganuma, Kiyotaka Nakajima, Daizo Yamaguchi, Masaaki Kitano, Hideki Kato, Shigenobu Hayashi, and Michikazu Hara, “Synthesis and Acid Catalysis of Cellulose-Derived Carbon-Based Solid Acid”, Solid State Sciences, in press (Manuscript No.:
SSSCIE-D-09-00023R1).


3. International conference

Plenary

Oral