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(54) Title: SOLUBILIZATION OF CARBONACEOUS MATERIALS AND CONVERSION TO HYDROCARBONS AND OTHER USEFUL PRODUCTS

(57) Abstract: Methods of producing useful products, such as hydrocarbons and other molecules that are useful as fuels, from carbonaceous materials, are disclosed. Such methods include obtaining a carbonaceous material, such as coal, from a deposit and treating the carbonaceous material with one or more chemicals, including acetic acid, salts of acetic acid, esters of acetic acid, hydroxides and peroxides, alone or in combination, to solubilize the material in preparation for further processing, such as bioconversion, to produce useful products, or solubilizing the carbonaceous material in a formation using the above-recited chemicals, removing the solubilized material from the formation and bioconverting it to produce useful products, or solubilizing the material using the above-recited chemicals and bioconverting at least a portion of the solubilized material in a formation followed by recovery of useful products from the formation.



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