

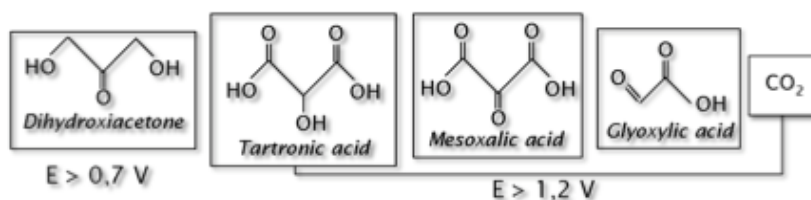
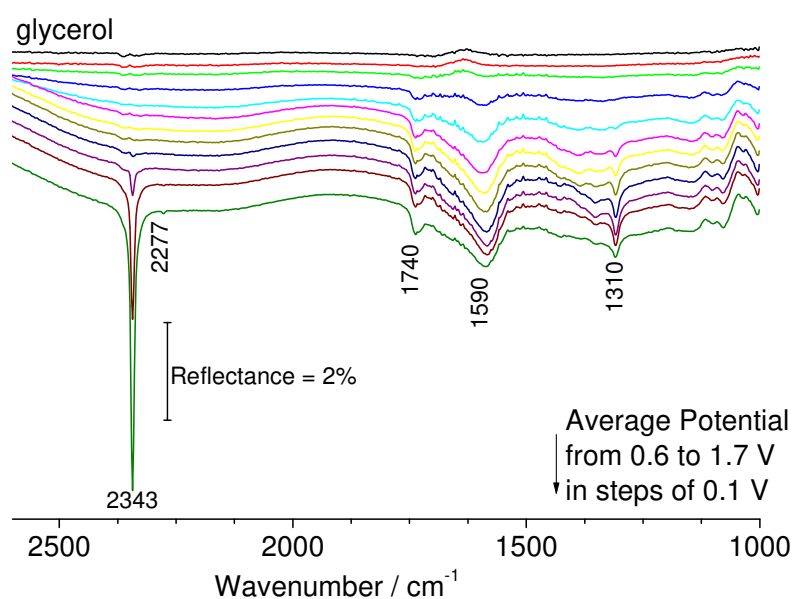
Eletro-oxidação de Glicerol: Um Caminho para Produzir Energia e Compostos de Alto Valor Agregado

Glycerol electrooxidation: A way to produce energy and value-added chemicals

Germano Tremiliosi Filho

Instituto de Química de São Carlos, Universidade de São Paulo
Caixa Postal 780 – 13560-970 – São Carlos, SP, Brasil

Abstract: The C–C–C bond cleavage and the multielectron nature of glycerol full oxidation to CO₂ is a very difficult processes. However, partial anodic oxidation of glycerol without C–C–C bond cleavage generate a given amount of energy and, additionally, it is able to produce value-added chemicals as dihydroxyacetone, hydroxypyruvic, mesoxalic, glycolic, tartronic acids. The main thrust of this anodic process is related with the selectivity control. Bimetallic gold based nanoparticles are able to optimizing this selectivity in alkaline medium. Reactional formed products were provided by *in situ* FTIR spectroscopy as shown below with the main formed products.



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