

Oxycracking; radicals in catalysis

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Oxidative cracking is an alternative technology for the production of lower olefins, competing well known steam-cracking technology. The catalytic reaction proceeds via generation of radicals at the surface of e.g. Li-MgO catalysts, followed by radical chain reactions in the gas-phase. The lecture will deal with some recent result on catalyst modification for propane and hexane oxycracking. The last part of the lecture will focus on the question how cold-plasma could help in understanding the molecular processes, including typical differences between radical generation in a plasma versus at the surface of a catalyst.