Novel Processes for the Synthesis of Polyisoprene and Polyisoprene-Polyisobutylene Block and Graft Copolymers based on Natural Rubber Biosynthesis

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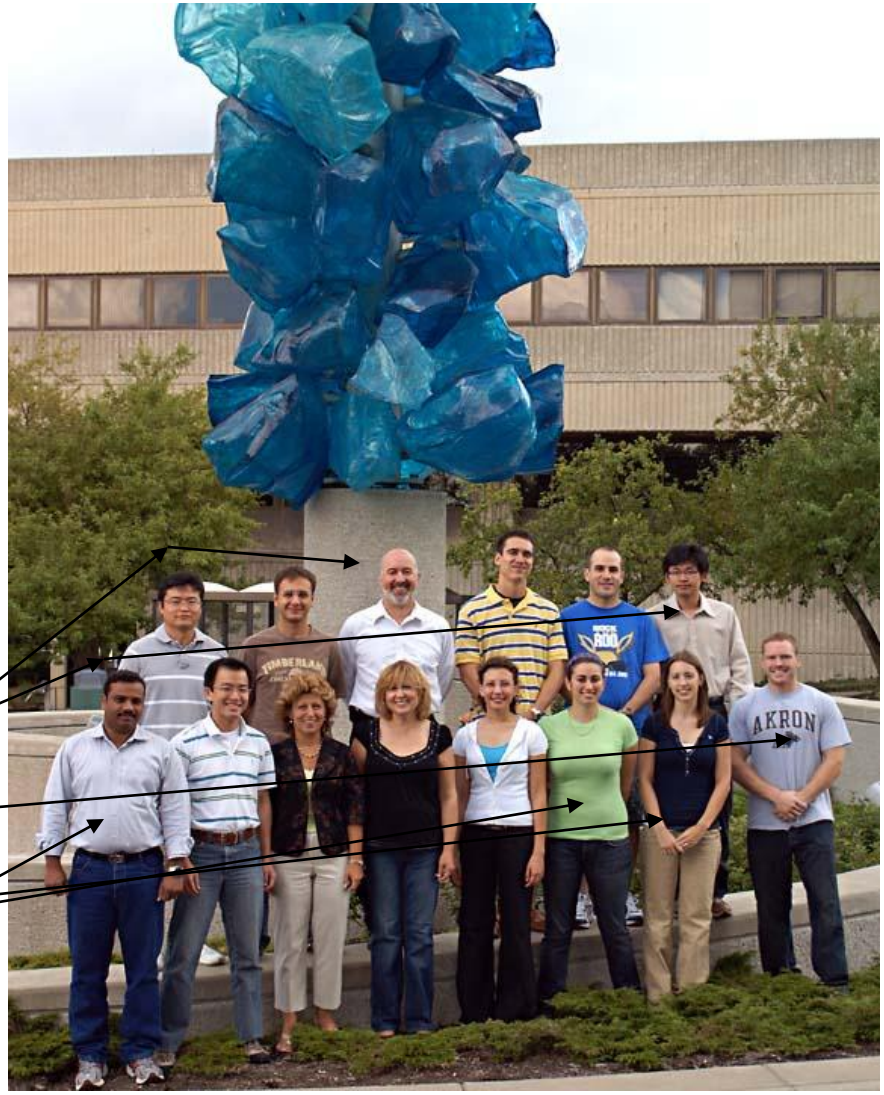
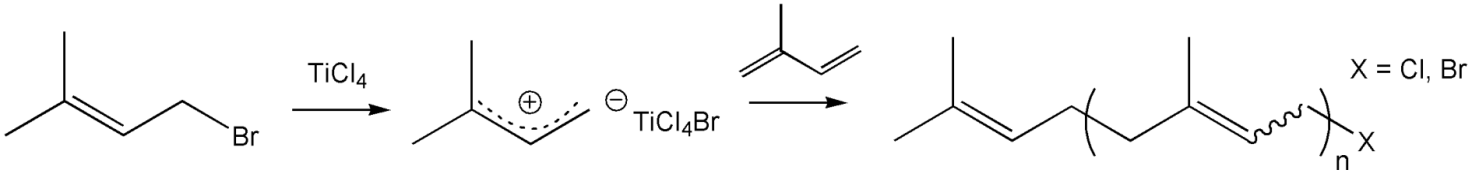
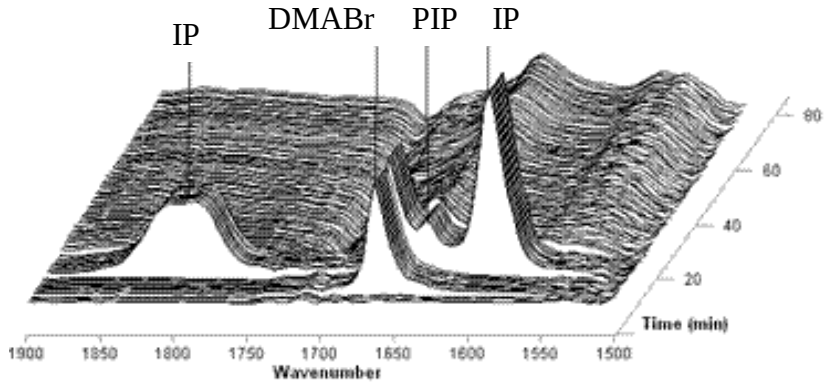


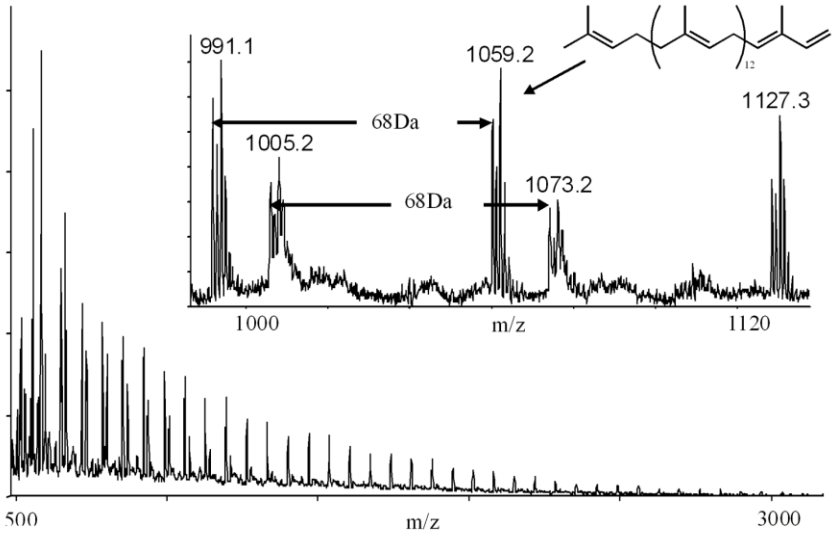
http://gozips.uakron.edu/~jpuskas/

Biomimetic IP Polymerization





Real-time FTIR monitoring of IP polymerization.
$[DMABr]_0$ = 0.1 M; $[IP]_0$ = 0.3 M; $[TiCl_4]$ = 0.1 M,
[D*t*BP] = 0.007 M; Hx/MeCl 60/40 v/v, T = -60 °C.



MALDI-TOF of PIP

Broader Impacts

Graduate Student Research Experience abroad (Bordeaux, France); Industrial Interest; Research Experience for Undergraduates; Research Experience for Teachers; Research Experience for High School Students.