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(71) Applicant: **EXXONMOBIL TECHNOLOGY AND ENGINEERING COMPANY** [US/US]; 22777 Springwoods Village Parkway, Spring, TX 77389 (US).

(72) Inventors: **LIU, Sophie**; 61 New Street, Hampton, NJ 08827 (US). **BAO, Xiaoying**; 4239 Albans, Houston, TX 77005 (US). **FALKOWSKI, Joseph, M.**; 61 New Street, Hampton, NJ 08827 (US).

(74) Agent: **CHEN, Siwen** et al.; Exxonmobil Technology And Engineering Company, 22777 Springwoods Village Parkway, Spring, TX 77389 (US).

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(54) Title: CATALYST COMPOSITIONS COMPRISING HOMOGENOUSLY DISTRIBUTED PROMOTER AND PROCESSES FOR MAKING AND USING SAME

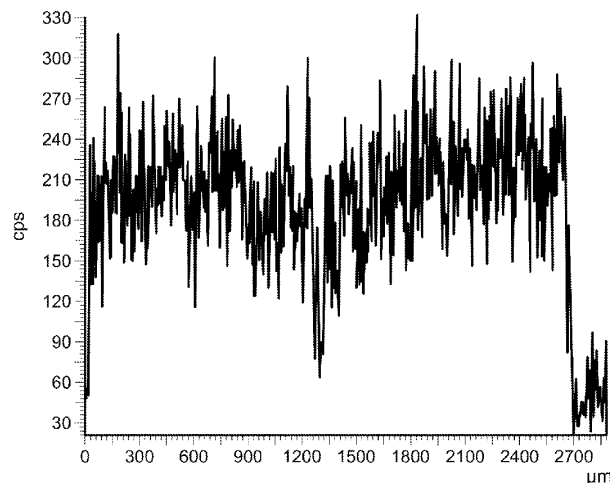


FIG. 1

(57) Abstract: Catalyst compositions and processes for making and using same. The catalyst composition includes a support, a Group 8-10 element such as platinum, and a promoter such as tin. The Group 8-10 element and promoter can be disposed through a volume of the support. The support can include a mixed Mg/Al metal oxide. The promoter is distributed substantially homogeneously throughout the volume of the support, as determined by energy-dispersive X-ray spectroscopy analysis. In other embodiments, a process for making the catalyst composition can include forming a mixture that can include a Group 8-10 element-containing compound, a promoter-containing compound, a carboxylic acid, a liquid medium, and a support that can be or can include a mixed Mg/Al metal oxide. The promoter-containing compound can include Sn, Cu, Au, Ag, Ga, a combination thereof, or a mixture thereof. The process can also include heating the mixture to produce the catalyst composition.

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WO 2025/174477 A1

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