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(71) Applicant: EXXON CHEMICAL PATENTS INC. [US/US]; 5200 Bayway Drive, Baytown, TX 77520–5200 (US).

(72) Inventors: MOHR, Gary, David; 2018 Caravel Drive, League City, TX 77573 (US). CLEM, Kenneth, Ray; 7407 Pine Green Lane, Humble, TX 77346 (US). MORTIER, Wilfried, J.; Diestse Steenweg 483, B–3010 Kessel–Lo (BE). MERTENS, Machteld, Maria; Beringstraat 72, B–3190 Boortmeerbeek (BE). FENG, Xiaobing; Apt. 317, 601 Enterprise Avenue, League City, TX 77573 (US). ANTHONIS, M., H.; Moniestraat 30, B–1981 Hofstade (BE). SCHOOFS, Bart; 4500 Bayway Drive, Baytown, TX 77520 (US).

(74) Agents: SHERER, Edward, F. et al.; ExxonMobil Chemical Company, P.O. Box 2149, Baytown, TX 77522–2149 (US).

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(54) Title: ZEOLITE BOUND CATALYST CONTAINING AT LEAST THREE DIFFERENT ZEOLITES; USE FOR HYDROCARBON CONVERSION

(57) Abstract

There is provided a zeolite bound zeolite catalyst which does not contain significant amount of non–zeolitic binder and can be tailored to optimize its performance and a process for converting hydrocarbons utilizing the zeolite bound zeolite catalyst. The zeolite bound zeolite catalyst comprises core crystals containing first crystals of a first zeolite and optionally second crystals of a second zeolite having a composition, structure type, or both that is different from said first zeolite and binder crystals containing third crystals of a third zeolite and optionally fourth crystals of a fourth zeolite having a composition, structure type, or both that is different from said third zeolite. If the core crystals do not contain the second crystals of the second zeolite, then the binder crystals must contain the fourth crystals of the fourth zeolite. The zeolite bound zeolite finds application in hydrocarbon conversion processes, e.g., catalytic cracking, alkylation, disproportional of toluene, isomerization, and transalkylation reactions.