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(54) Title: THERMOPLASTIC POLYURETHANE COMPOSITIONS COMPRISING NITRO-SUBSTITUTED POLYESTER DIOLS

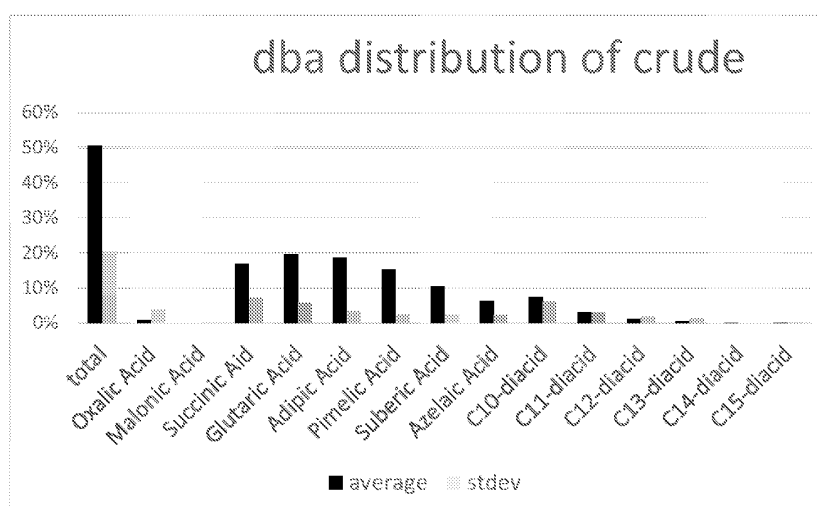


FIG. 1

(57) Abstract: This invention relates to the field of polymers. More specifically, the invention comprises thermoplastic polyurethane elastomers comprising polyesters comprising nitro-substituted dicarboxylic acids that are products obtained by decomposition of polyethylene. The thermoplastic polyurethane elastomers described herein exhibit higher glass transition temperatures and higher Shore A hardness compared to thermoplastic polyurethane elastomers synthesized from similar polyester diols made from virgin monomers that do not contain nitro substitution.

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