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(54) Title: SYSTEMS, METHODS, AND NON-TRANSITORY COMPUTER-READABLE MEDIUM OF PREDICTING A COM-
PATIBILITY OF AN ADHESIVE OR COATING COMPOSITION AND POLYOLEFIN POLYMERS

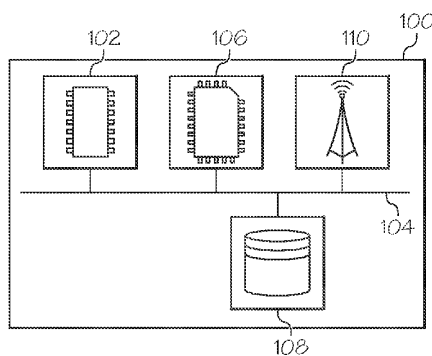


FIG. 1

(57) Abstract: Embodiments of the present disclosure are directed to systems, methods, and nontransitory computer-readable medium storing programs for predicting mechanical recyclability or compatibility of an adhesive or coating composition and polyolefin polymer by calculating Hansen's solubility parameter (HSP) of the adhesive or coating composition, an arithmetic distance (Ra), a geometric distance (Rb), and an aliphatic carbon ratio (ACR) of the adhesive or coating composition; comparing at least one of the HSP of the adhesive or coating composition, the arithmetic distance (Ra) and the geometric distance (Rb) to a threshold value; comparing the ACR of the adhesive or coating composition to a threshold value of ACR; and predict the mechanical recyclability or compatibility of the adhesive or coating composition and the polyolefin polymer based on a result of comparisons.

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