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(54) Title: POLYMER EXCIPIENTS FOR BIOPHARMACEUTICAL FORMULATIONS

Amphiphilic AC/DC Excipients

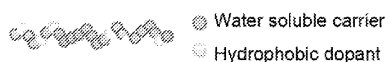
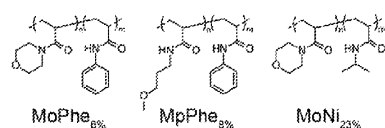


FIG. 28C

(57) Abstract: A polyacrylamide-based copolymer reduces or prevents ag-
gregation of biologic molecules including proteins, peptides, and nucleic
acids, and lipid-based vehicles such as liposomes, lipid nanoparticles, poly-
merosomes, and micelles, in aqueous formulations at hydrophobic interfaces,
thereby increasing the thermal stability of the molecules in the formulation.
Methods and compositions comprising the copolymer and a protein or the
copolymer and insulin can be used for treating conditions including diabetes.