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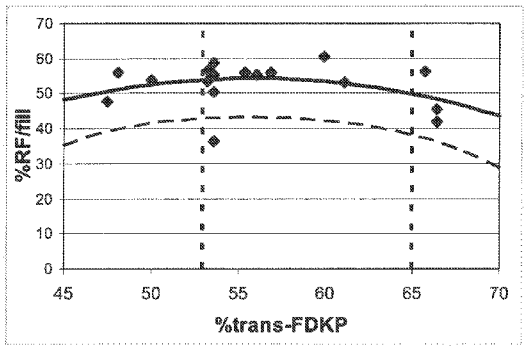
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FIG. 1



(57) Abstract: Disclosed herein are fumaryl diketopiperazine (FDKP) compositions and microparticles having a specific trans isomer content of about 45% to about 65%. The FDKP microparticles can comprise a drug such as an endocrine hormone, including, peptide, including, insulin, glucagon, parathyroid hormones and the like and can be used to make a powder formulation for pulmonary delivery of the drug.

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