

PATENT NO. 335708
MULTI-COMPONENT CRYSTALLINE FORM OF OXCARBAZEPINE

APPLICATION NO. 833/DEL/2012

APPLICANT
Punjab University

ABSTRACT

The present invention relates to a novel multicomponent crystalline form of oxcarbazepine an anti-epileptic agent used to treat partial seizures. This form comprises of a solvated cocrystal of oxcarbazepine with succinic acid. It was prepared by solution crystallization method using a mixture of methanol and chloroform as solvent. The structure of the titled compound has been given. In the unit cell there are eight host (drug) molecules four succinic acid molecules and four chloroform molecules i.e the ratio of drug acid solvent is 2:1:1. The invention also describes the conversion of this solvated co-crystal into its desolvated co-crystal form without disturbing the original crystal lattice. Efficacy of this desolvated co-crystal was proved by improved aqueous solubility dissolution profile and in vivo absorption that resulted in lowering of EDSO value in comparison with pure drug.

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CLAIM 1

A multi-component co-crystalline form of oxcarbazepine comprising desolvated cocrystal of oxcarbazepine with succinic acid wherein said co-crystal has an X-ray powder diffraction pattern with specific peaks at about 2θ 5.02°, 10.31°, 13.03°, 16.82°, 18.34°, 19.43°, 20.07°, 21.07°, 22.51°, 23.18°, 25.28°, 26.68°, 27.56° and 28.28°.