

# Exhibit 1007



US006946150B2

(12) **United States Patent  
Whittle**

(10) **Patent No.: US 6,946,150 B2**

(45) **Date of Patent: Sep. 20, 2005**

(54) **PHARMACEUTICAL FORMULATION**

(75) Inventor: **Brian Whittle**, East Yorkshire (GB)

(73) Assignee: **GW Pharma Limited**, Wiltshire (GB)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 2 days.

(21) Appl. No.: **10/218,989**

(22) Filed: **Aug. 14, 2002**

(65) **Prior Publication Data**

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(51) **Int. Cl.**<sup>7</sup> ..... **A01N 65/00**; A61K 35/78

(52) **U.S. Cl.** ..... **424/725**; 424/435

(58) **Field of Search** ..... 424/725, 435, 424/434, 449, 443, 447

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*Primary Examiner*—Alton Pryor

(74) *Attorney, Agent, or Firm*—Wolf, Greenfield & Sacks, P.C.

(57) **ABSTRACT**

The invention relates to pharmaceutical formulations, and more particularly to formulations containing cannabinoids for administration via a pump action spray. In particular, the invention relates to pharmaceutical formulations, for use in administration of lipophilic medicaments via mucosal surfaces, comprising: at least one lipophilic medicament, a solvent and a co-solvent, wherein the total amount of solvent and co-solvent present in the formulation is greater than 55% wt/wt of the formulation and the formulation is absent of a self emulsifying agent and/or a fluorinated propellant.

**26 Claims, 9 Drawing Sheets**

Fig. 1a

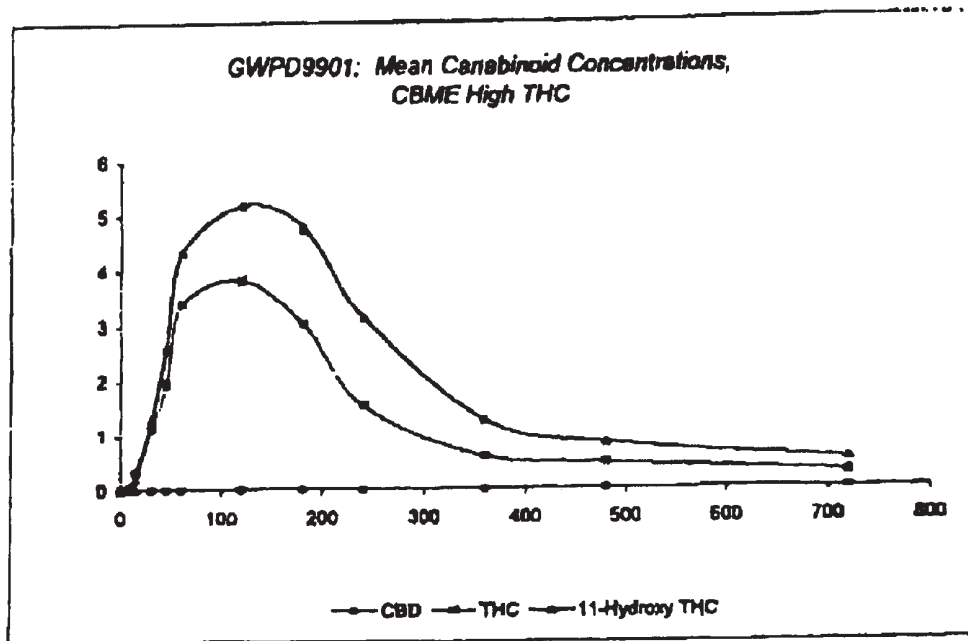


Fig. 1b

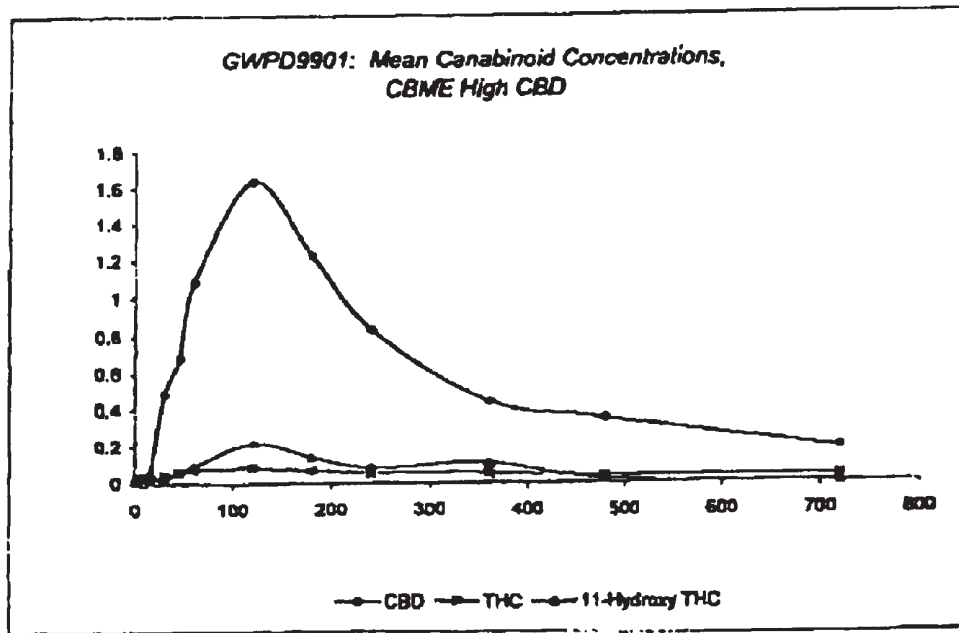


Fig. 2

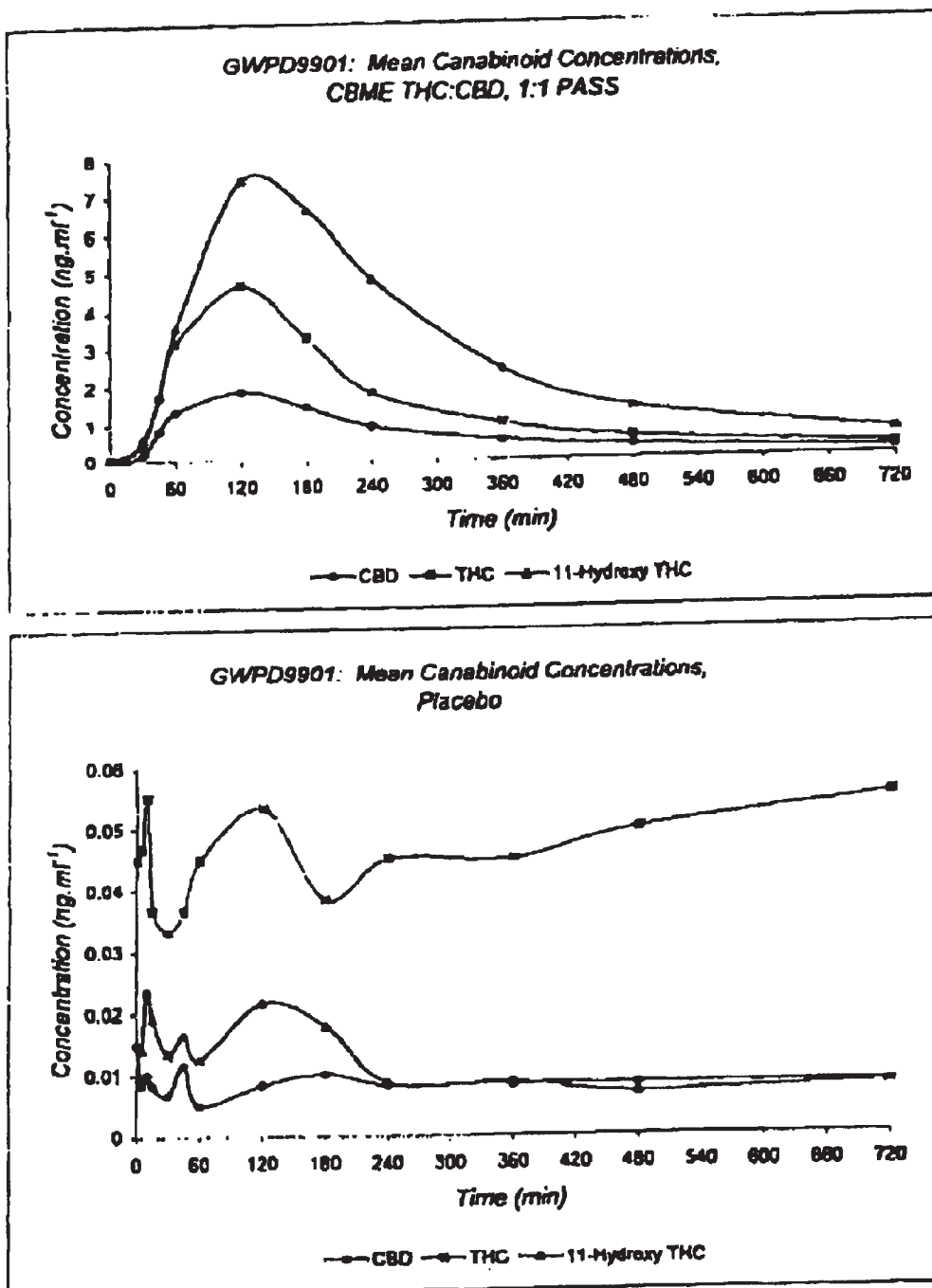
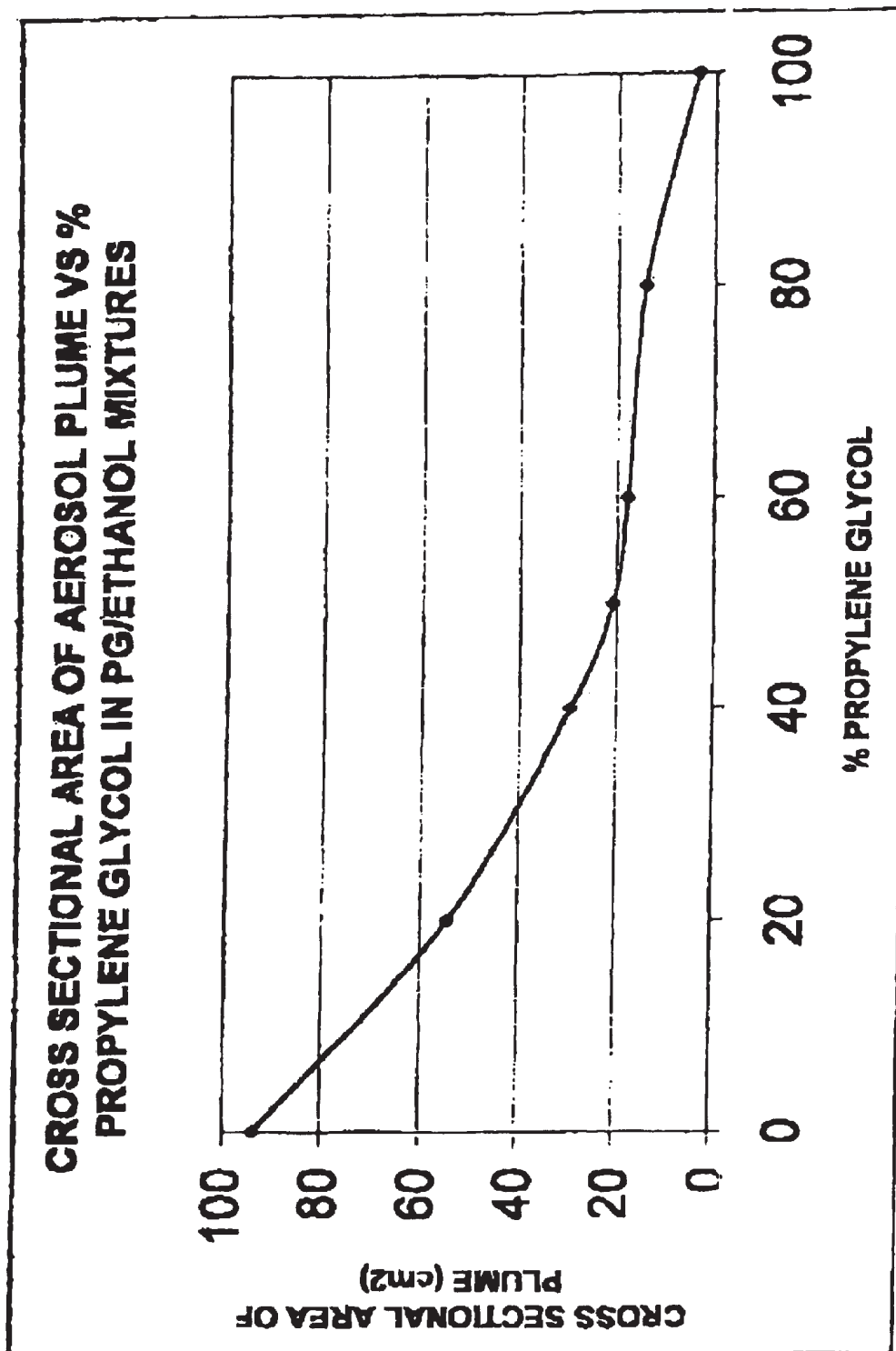


Fig. 3



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