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(54) Title: DISPOSABLE PATCH AND REUSABLE SENSOR ASSEMBLY FOR USE IN MEDICAL DEVICE LOCALIZATION AND MAPPING SYSTEMS

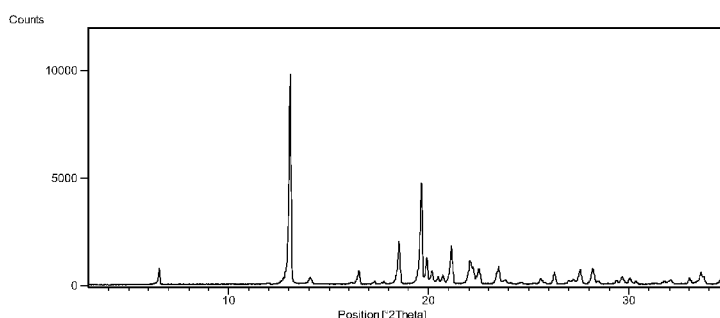


Figure 1: pXRD Pattern for Representative Sample of Crystalline Form (IS-VI)

(57) **Abstract:** A patch and sensor assembly for use in an EP mapping system has two portions: a reusable portion and a disposable portion. The reusable portion houses the biosensors used in magnetic based location and mapping systems and the electrical lead necessary to communicate between the biosensor and the mapping system. The reusable portion may also contain a portion of the electrode necessary to receive electrical signals from the body of the patient. The disposable portion of the patch and sensor assembly contains an adhesive covered flexible patch having at least a portion of the electrode used to receive electrical signals from the body of the patient and may contain the electrical lead necessary to communicate such an electrical signal to the mapping system. The disposable portion contains a receptacle adapted to receive and mechanically secure the reusable portion to the disposable portion of the assembly. Such a patch and sensor assembly is useful in hybrid magnetic and impedance based location and mapping systems such as those used in electrophysiology.