CLAIMS

1. An authentication apparatus operative to determine the authenticity of a polymer film, comprising: an optical response modifier operative to modify a first effect influenced by said birefringence characteristic of said film to a modified first effect, such that the birefringence measurement scale is different to that of an apparatus which does not have an optical response modifier; and an optically-based birefringence measuring arrangement operative to measure said modified first effect; and wherein said apparatus is operative to:

compare a value, or range of values, representative of said modified first effect as measured with a value, or range of values representative of a specified first effect as modified by a same optical response modifier and corresponding to a predetermined birefringence characteristic of an authentic polymer film; and

output an authenticity signal indicative of authenticity or otherwise of said film based upon said comparison.

2. An apparatus according to claim 1, wherein said apparatus is operative to differentiate between films made by a bubble process and films made by a different process.

3. An apparatus according to Claim 1, wherein said optically-based birefringence measuring arrangement comprises an emitter located, and operative, to illuminate a first side of said film located in a measuring region of said apparatus with electromagnetic radiation; a first polariser located between said first emitter and said first side of said film so that at least a portion of electromagnetic radiation emitted by said first emitter passes therethrough; and a first detector located on a second side of said film, and operative to receive electromagnetic radiation from said emitter transmitted through said film; a second polariser located between said second side of said film and said first detector so that at least a portion of electromagnetic radiation transmitted through said film passes through the second polariser; wherein said optical response modifier is located in a

optical response modifier and corresponding to a predetermined birefringence characteristic of an authentic polymer film for said first angle.

15. A method of determining the authenticity of a polymer film, comprising:

modifying a first effect influenced by said birefringence characteristic of said film to a modified first effect such that the birefringence measurement scale is different to that of an apparatus which does not have an optical response modifier;

measuring said modified first effect

comparing a value, or range of values, representative of said modified first effect as measured with a value, or range of values representative of a specified first effect as modified by a same optical response modifier and corresponding to a predetermined birefringence characteristic of an authentic polymer film; and

outputting an authenticity signal indicative of authenticity or otherwise of said film based upon said comparison.