Over nearly the last twenty years there has been a major increase in the awareness of the intellectual property implications and manifestations of the existence of multiple solid forms (polymorphs, solvates, hydrates and amorphous) of commercially important materials (e.g. pharmaceuticals, pigments, high energy materials), due in part, at least, to a number of high profile litigations involving some leading pharmaceutical products. The prosecution of these litigations involves the recruitment of expert witnesses, who are called by the opposing sides to inform the court of the scientific principles issues in the legal conflict as well as to provide evidence in support of the party that has retained them. Due to the nature of the subject matter, many crystallography have been retained as witnesses. The scientific subjects often deal with fundamental questions on the definition of chemical and physical terms, the precision, accuracy and interpretation of various analytical methods employed in the identification and characterization of different crystal forms, and the similarities and differences in the modus operandi of scientists and lawyers. Quite often colleagues and friends can find themselves on the opposite sides of a courtroom, due to differences in scientific opinion or interpretation of data involved in the litigations. These discussions frequently involve legitimate differences in scientific opinion with the courts left to decide either on which side is “right”, or perhaps which side is most convincing. A number of examples of these litigations will be described and discussed.

**Keywords:** patents, litigations, polymorphs, crystal forms, expert witnesses