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(54) **METHOD FOR PRODUCING AMMONIUM OCTAMOLYBDATE COMPOSITION**

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(58) **Field of Search** 423/593, 606; 502/300, 305

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(57) **ABSTRACT**

An isomer of ammonium octamolybdate ("AOM") and method for producing the same. A new AOM isomer ("X-AOM") is described which is characterized by a distinctive Raman spectral profile compared with other AOM isomers including α and β-AOM. To produce the novel isomer, ammonium dimolybdate ("ADM") is combined with molybdenum trioxide (MoO_3) and water to yield a mixture. When mixing these materials, optimum results are achieved if at least one of the foregoing molybdenum-containing reagents is added in a gradual, non-instantaneous manner so that the selected reagent is not added to the mixture in a single large mass. This gradual delivery procedure, along with a carefully controlled prolonged heating stage (e.g. in excess of 3 hours) contributes to a maximum yield of high purity X-AOM.

18 Claims, 2 Drawing Sheets