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(54) **PREPARATION OF GRAPHITIC C3N3P MATERIAL**

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CPC ***C07F 9/65216*** (2013.01); ***C01B 21/082*** (2013.01); ***C01B 21/097*** (2013.01); ***C07D 251/26*** (2013.01)

(58) **Field of Classification Search**

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See application file for complete search history.

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(57) **ABSTRACT**

A new graphitic material has the empirical formula C_3N_3P and comprises triazine rings bound together by phosphorus atoms, and/or other 5- or 6-membered rings with various carbon, nitrogen, and phosphorous connectivity. The material is made by polymerizing $P(CN)_3$, for example by using a temperature of at least 220° C. and an elevated pressure, optionally as high as 1500° C. and 12 GPa.

12 Claims, 11 Drawing Sheets