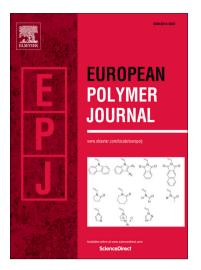
Accepted Manuscript

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PII: DOI:	S0014-3057(17)31065-0 http://dx.doi.org/10.1016/j.eurpolymj.2017.09.023
Reference:	EPJ 8074
To appear in:	European Polymer Journal
Received Date:	16 June 2017
Revised Date:	9 September 2017
Accepted Date:	17 September 2017



Please cite this article as: Cao, Z., Liu, C., Qu, C., Zhao, X., Wang, D., Chen, C., Hou, X., Li, L., Zhu, G., Polymerization of poly-(amic acid) ammonium salt in aqueous solution and its use in Flexible Printed Circuit Boards, *European Polymer Journal* (2017), doi: http://dx.doi.org/10.1016/j.eurpolymj.2017.09.023

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Polymerization of poly-(amic acid) ammonium salt in aqueous solution and its use in Flexible Printed Circuit Boards

Zhibo Cao^a, Changwei Liu^b, Chunyan Qu^b, Xiaogang Zhao^a, Daming Wang^a, Chunhai Chen^{a*}, Xiang Hou^b, Liaoliao Li^b, Guangyu Zhu^b

^aAlan G. MacDiarmid Institute, Jilin University, Changchun 130012, China

^bInstitute of Petro chemistry, Heilongjiang Academy of Science, Harbin, 15000, China

*Corresponding author: <u>cch@jlu.edu.cn</u> (Chunhai Chen).

ABSTRACT

It is highly desirable to combine the solubility of the PI precursor in a non-polluting solvent with the high performance behavior of PIs without sacrificing processability, thermal properties and mechanical properties. In this study, we explored a new strategy based on polycondensation reactions to prepare poly-(amic acid) ammonium salt (PAAS) in aqueous solution. PAAS synthesized using mixture was of a 3,3,4,4-biphenyltetracarboxylic 4,4'-oxydiphthalic dianhydride and anhvdride and mixture 4,4'-diaminodiphenyl ether a of and p-phenylenediamine. The molecular weight of PAAS, the inherent viscosity of the PAAS solution, and the thermal and mechanical properties of the obtained PI films were investigated by focusing on the polymer structures and comparing with those of the polymerization in Download English Version:

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