

论文

三嗪树枝状1,4,5,8-萘酰亚胺化合物的合成和荧光性能

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摘要:

采用收敛法合成了3代内核为1,4,5,8-萘酰亚胺, 端基分别含8个和16个乙基的三嗪树枝状大分子, 产物经IR,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR及元素分析表征. 实验结果表明, 该方法无需保护/脱保护, 反应条件温和, 收率非常高. 通过荧光光谱对其荧光特性进行了初步研究, 发现经过树枝状修饰后的产物具有更好的荧光性能, 且随着代数的增加, 树枝状产物的荧光强度不断增强.

关键词: 树枝状大分子 1,4,5,8-萘酰亚胺 荧光强度

Synthesis and Fluorescent Properties of Triazine-based Dendrimers Functionalized with 1,4,5,8-Naphthalimide Group

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Abstract:

Without employing protection or deprotection steps, a novel series of fluorescent triazine dendrimers of three generations containing of a single, focally located 1,4,5,8-naphthalimide-based core and 8, 16 ethyl peripheral groups were synthesized with convergent approaches, and fully characterized *via* IR,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and elemental analyses. Using this method, a mild reaction condition was allowed, and an excellent yield was obtained. Their fluorescent properties in dichloromethane were studied. The results indicate that the triazine dendrimers have stronger fluorescence, and their intensity increased according to generation number increase.

Keywords: Dendrimer 1,4,5,8-Naphthalimide Fluorescence intensity

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参考文献:

1. Bosman A. W., Janssen H. M., Meijer E. W.. Chem. Rev.[J], 1999, 99: 1665—1681
2. Fischer M., Vögtle F.. Angew. Chem., Int. Ed.[J], 1999, 38: 884—893
3. Bharathi P., Moore J. S.. J. Am. Chem. Soc.[J], 1996, 118: 9635—9638
4. Setayesh S., Garimdsdale A. C., Weil T.. J. Am. Chem. Soc.[J], 2001, 123: 946—949
5. Devadoss C., Bharathi P., Moore J. S.. J. Am. Chem. Soc.[J], 1996, 118: 9635—9639
6. Ramachandram B., Sankaran N. B., Samanta A.. Tetrahedron[J], 2000, 56: 7041—7048
7. SHANG Yu-Ming(尚玉明), XIE Xiao-Feng(谢晓峰), LIU Yang(刘洋). Chem. J. Chinese Universities(高等学校化学学报)[J], 2006, 27(6): 1153—1156
8. HU Cheng(胡成), ZHU Wei-Hong(朱为宏), TIAN He(田禾). Acta Polym. Sin.(高分子学报)[J], 1999, (2): 232—235
9. Namazia H., Adelil M.. Polymer[J], 2005, 46: 10788—10799

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