

报告编号: 201408031

# 收录检索报告

委托内容: 李德玲发表的论文

委托机构: 唐山师范学院

委托日期: 2014 年 5 月 26 日

检索机构 (盖章): 教育部部级科技查新工作站 G11

检索完成日期: 2014 年 5 月 26 日





一、检索要求:

- 1、被检作者: 李德玲
- 2、委托机构: 唐山师范学院

二、检索范围:

Science Citation Index Expanded (SCI-EXPANDED) .....2010-present

三、检索结果:

提供的待检论文中有 1 篇被 SCI 收录 (详见附件一)

检索人: 张春峰

教育部部级科技查新工作站 G11(盖章)

2014 年 5 月 26 日

G11

技查  
1



报告编号: 201408031

## 论文收录引用检索证明报告

姓名	李德玲	电话	18633115338						
工作单位	唐山师范学院								
检索条件	<table><tr><td>数据库</td><td>检索年限</td><td>检索式</td></tr><tr><td>SCI-Expanded (网络版)</td><td>2010- present</td><td>作者: (li deling) AND 作者: (su guixian)</td></tr></table>			数据库	检索年限	检索式	SCI-Expanded (网络版)	2010- present	作者: (li deling) AND 作者: (su guixian)
数据库	检索年限	检索式							
SCI-Expanded (网络版)	2010- present	作者: (li deling) AND 作者: (su guixian)							
检索结果	<p>经检索相关数据库:</p> <p>1) SCI 收录: 有 1 篇被收录; (详细结果见附件)</p> <p>特此证明!</p>								
委托人声明	<p>委托人已对本证明所列论文逐篇核对, 确认无误, 如有不实, 由委托人承担全部责任。</p> <p>委托人签字:</p>								
检索机构	教育部科技查新工作站 G11 燕山大学图书馆								
检索时间	2014 年 5 月 26 日	检索员	张春峰 (签字)						



## 一、 被 SCI 收录的论文题录

第 1 条, 共 1 条

标题: Thermo-oxidative stability of poly(methyl methacrylate)/poly(methyl methacrylate)-grafted SiO<sub>2</sub> nanocomposites

作者: Li, DL (Li, Deling); Su, GX (Su, Guixian); He, Q (He, Qin); Zhang, Q (Zhang, Qing); Liu, LH (Liu, Lihua)

来源出版物: POLYMER BULLETIN 卷: 71 期: 2 页: 487-496 DOI: 10.1007/s00289-013-1072-3 出版年: FEB 2014

入藏号: WOS:000330826700011

地址: [Li, Deling; Su, Guixian; He, Qin; Zhang, Qing; Liu, Lihua] Tangshan Normal Univ, Dept Chem, Tangshan 063000, Peoples R China.

通讯作者地址: Li, DL (通讯作者), Tangshan Normal Univ, Dept Chem, Tangshan 063000, Peoples R China.

电子邮件地址: delingshi@sina.com

IDS 号: AA0ZU

ISSN: 0170-0839

电子 ISSN: 1436-2449

丁  
M.



## Thermo-oxidative stability of poly(methyl methacrylate)/poly(methyl methacrylate)-grafted SiO<sub>2</sub> nanocomposites

Deling Li · Guixian Su · Qin He · Qing Zhang ·  
Lihua Liu

Received: 14 March 2013 / Revised: 4 September 2013 / Accepted: 6 November 2013 /  
Published online: 15 November 2013  
© Springer-Verlag Berlin Heidelberg 2013

**Abstract** Thermo-oxidative stability of PMMA-grafted SiO<sub>2</sub> and PMMA/PMMA-grafted SiO<sub>2</sub> nanocomposites was investigated by conventional non-isothermal gravimetric technique. It was interesting to find that PMMA-grafted SiO<sub>2</sub> nanoparticles exhibited higher thermo-oxidative stability than that of PMMA. The apparent activation energy of PMMA-grafted SiO<sub>2</sub> nanoparticles increased with the grafting ratio of PMMA from SiO<sub>2</sub>, which was estimated by Kissinger method. This indicates that the strong interactions existing between the grafted chains are responsible for the enhanced thermo-oxidative stability of PMMA-grafted SiO<sub>2</sub> nanoparticles. However, the grafting ratio of PMMA from SiO<sub>2</sub> in nanoparticles has only limited effect on the thermo-oxidative stability of PMMA/PMMA-grafted SiO<sub>2</sub> nanocomposites due to a much lower content of grafted PMMA in the nanoparticles relative to PMMA. The increased thermo-oxidative stability of PMMA/PMMA-grafted SiO<sub>2</sub> nanocomposites is possibly resulted from the increased SiO<sub>2</sub> content in the nanocomposites, in which the grafting ratio of PMMA in PMMA-grafted SiO<sub>2</sub> nanoparticles is kept almost as a constant. The glass transition temperature ( $T_g$ ) of PMMA/PMMA-grafted SiO<sub>2</sub> nanocomposites is about 25 °C and is higher than that of PMMA. The grafting ratio of PMMA from SiO<sub>2</sub> in the nanoparticles has no qualitative effects on the  $T_g$  of the nanocomposites.

**Keywords** Poly(methyl methacrylate) · Nanocomposite · Thermo-oxidative stability · Thermogravimetry · Kinetics

D. Li (✉) · G. Su · Q. He · Q. Zhang · L. Liu  
Department of Chemistry, Tangshan Normal University, Tangshan 063000, China  
e-mail: delingshi@sina.com