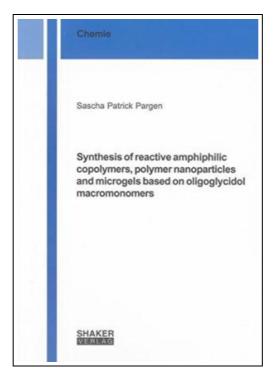
# Synthesis of reactive amphiphilic copolymers, polymer nanoparticles and microgels based on oligoglycidol macromonomers



Filesize: 8.07 MB

### Reviews

Comprehensive guide! Its this sort of very good go through. It generally is not going to price too much. Its been designed in an remarkably basic way which is simply following i finished reading this pdf where really changed me, affect the way i really believe.

(Prof. Jeremie Blanda DDS)

# SYNTHESIS OF REACTIVE AMPHIPHILIC COPOLYMERS, POLYMER NANOPARTICLES AND MICROGELS BASED ON OLIGOGLYCIDOL MACROMONOMERS



Shaker Verlag Mrz 2013, 2013. Buch. Book Condition: Neu. 21x14.8x cm. Neuware - This thesis deals with the preparation of novel polymeric structures on the basis of hydroxy- functional prepolymers suitable for radical polymerization. These prepolymers, so called macromonomers, are versatile tools for introducing hydrophilic moieties into polymer chains or for example can be used for stabilizing particles in aqueous solution. In this thesis, next to the synthesis of the macromonomers themselves, the preparation of amphiphilic copolymers, polymer nanoparticles and microgels based on hydrophilic macromonomers is presented. All macromonomers used in this thesis are based on polyglycidol, a polyether with similar structure to poly(ethylene oxide) but with a hydroxy methyl group in every repeating unit. The synthesis of the macromonomers was performed by anionic ring opening polymerization starting from allyl glycol, 4- vinyl benzyl alcohol (VBA) and N-hydroxyethyl methacryl amide (HEMAm). Thus, low molecular weight macromonomers with three to fifty repeating units were prepared. Branched oligoglycidol macromonomers were prepared by anionic polymerization of glycidol. Linear oligoglycidol macromonomers were synthesized using acetal protected glycidol (EEGE) followed by removal of the acetal protection group under acidic conditions. Successful copolymerization of these hydrophilic oligoglycidol macromonomers with hydrophobic monomers like styrene or different (meth)acrylates was performed using free radical polymerization. These reactions were a first step to show that copolymerization of the oligoglycidol macromonomers with different hydrophobic monomers is possible. For later applications it is important to prepare amphiphilic copolymers with defined structure and architecture. Therefore nitroxide mediated polymerization (NMP) was used to prepare amphiphilic block copolymers with defined block lengths. Next to the nitroxide TEMPO, suitable for controlled polymerization of styrene and derivates, the more universal NMP initiator combination SGI/ BlocBuilder was used for the copolymerization of VBA- and HEMAm- oligoglycidol macromonomers with different hydrophobic monomers. With a hydrophobic head group and a...

- Read Synthesis of reactive amphiphilic copolymers, polymer nanoparticles and microgels based on oligoglycidol macromonomers Online
- Download PDF Synthesis of reactive amphiphilic copolymers, polymer nanoparticles and microgels based on oligoglycidol macromonomers

### You May Also Like



Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications.

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. This historic book may have numerous typos and missing text. Purchasers can usually...

**Download Document »** 



Crochet: Learn How to Make Money with Crochet and Create 10 Most Popular Crochet Patterns for Sale: ( Learn to Read Crochet Patterns, Charts, and Graphs, Beginner's Crochet Guide with Pictures)

Createspace, United States, 2015. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Getting Your FREE Bonus Download this book, read it to the end and...

**Download Document »** 



Games with Books: 28 of the Best Childrens Books and How to Use Them to Help Your Child Learn - From Preschool to Third Grade

Book Condition: Brand New. Book Condition: Brand New.

Download Document »



Games with Books: Twenty-Eight of the Best Childrens Books and How to Use Them to Help Your Child Learn from Preschool to Third Grade

Book Condition: Brand New. Book Condition: Brand New.

**Download Document »** 



Children's Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English]

Createspace, United States, 2013. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

**Download Document »** 



## Who Am I in the Lives of Children? an Introduction to Early Childhood Education with Enhanced Pearson Etext - Access Card Package

 $Pearson, United States, 2015. \ Paperback. \ Book Condition: New. \ 10th. \ 251 \times 203 \ mm. \ Language: English. \ Brand \ New Book. \ NOTE: Used books, rentals, and purchases made outside of Pearson If purchasing or renting from companies$ 

Read Document »



#### Super Easy Storytelling The fast, simple way to tell fun stories with children

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.9in. x 8.0in. x 0.2in.Instantly start telling stories with kids. Great for spontaneous storytelling or for creative Read Document »



#### Talking Digital: A Parent's Guide for Teaching Kids to Share Smart and Stay Safe Online

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English. Brand New Book. It is time for the digital talk. Today, kids are growing up in a wired world. Their

Read Document »



## Letters to Grant Volume 2: Volume 2 Addresses a Kaleidoscope of Stories That Primarily, But Not Exclusively, Occurred in the United States. It de

Createspace, United States, 2013. Paperback. Book Condition: New. 216 x 140 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Volume 2 addresses a kaleidoscope of stories that primarily, but not exclusively, occurred Read Document »



#### Summer Fit Preschool to Kindergarten Math, Reading, Writing, Language Arts Fitness, Nutrition and Values

Summer Fit Learning. Paperback. Book Condition: New. Paperback. 160 pages. Dimensions: 10.6in. x 8.3in. x 0.5in. Summer Fit Activity Books move summer learning beyond academics to also prepare children physically and socially for the grade ahead.

Read Document »