

## SYNTHESIS AND PROPERTIES OF NOVEL GEMINI SURFACTANT WITH

Oct 27, 2020



### [Synthesis And Properties Of Novel Gemini Surfactant With](#)

Abstract. Cationic gemini surfactant dimethylene-1,2-bis(dodecyldiethylammonium bromide), referred to as C 12 C 2 C 12 (Et) was synthesized, and its surface property and aggregation behavior in aqueous solution were studied. The value of  $\gamma$  at the critical micelle concentration ( $\gamma_{cmc}$ ) is much smaller than that of the surfactant homologues with longer spacer.

### [Synthesis and Properties of a Novel Gemini Surfactant with...](#)

A novel cationic Gemini surfactant with bis-piperidinium and benzene ring (C 10-CGP) was synthesized by aniline, epichlorohydrin and 1-bromodecane in three steps. The structure of C 10-CGP was characterized by mass spectroscopy (MS) and nuclear magnetic resonance ( $^1\text{H}$  NMR). The critical micelle concentration (CMC) and the corresponding surface tension ( $\gamma_{cmc}$ ) of C 10-CGP were measured from 298 ...

### [Synthesis and properties of novel cationic gemini...](#)

Synthesis and properties of novel gemini surfactant with short spacer LU Ting & HUANG JianBin† Beijing National Laboratory for Molecular Sciences (BNLMS), College of Chemistry and Molecular Engineering, Peking University, Beijing 100871, China Cationic gemini surfactant dimethylene-1,2-bis(dodecyldiethylammonium bromide), referred to as C 12C 2C 12(Et) was synthesized, and its surface ...

### [Synthesis and properties of novel ester-containing gemini...](#)

Download Citation | Synthesis and properties of novel gemini surfactant with short spacer | Cationic gemini surfactant dimethylene-1,2-bis(dodecyldiethylammonium bromide), referred to as C12C2C12 ...

### [\(PDF\) Synthesis and properties of novel cationic gemini...](#)

Abstract. A novel cationic gemini surfactant with the hydrophenanthrene structure has been synthesized from dehydroabietylamine. Its structure was confirmed by IR,  $^1\text{H}$  NMR, and elemental analysis. The critical micelle concentration (CMC) of the surfactant and its surface tension at the CMC ( $\gamma_{cmc}$ ) in aqueous solution were about  $1.58 \times 10^{-5} \text{ mol L}^{-1}$  and  $36.6 \text{ mN m}^{-1}$  at  $25^\circ\text{C}$  ...

### [Synthesis and Surface Properties of Novel Gemini...](#)

A series of novel gemini surfactants, namely, phenyl-1,4-bis[(carbamoylmethyl) N,N-dimethylalkyl ammonium chloride] (a, b and c), was synthesized systematically and characterized by FTIR,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR and MS. The surface and bulk properties were evaluated by surface tension, conductivity, viscosity, dynamic light scattering (DLS) and transmission electron microscopy (TEM) measurements.

### [Synthesis and Properties of Dissymmetric Gemini Surfactants](#)

Novel Imidazolium-Based Gemini Surfactants: Synthesis, Surface Properties, Corrosion Inhibition and Biocidal Activity Against Sulfate-Reducing Bacteria. Journal of Surfactants and Detergents 2013, 16 (6) , 927-935. DOI: 10.1007/s11743-013-1491-z. Donghui Hu, Xiangfeng Guo, Lihua Jia. Synthesis, Surface Active Properties of Novel Gemini Surfactants with Amide Groups and Rigid Spacers. Journal ...

### [Synthesis and properties of a novel class of gemini...](#)

Unlike traditional surfactants, gemini surfactant has novel structure and excellent performance: using the spacer, it can connect two hydrophilic groups by chemical bonds to form a structure with double hydrophilic groups and double hydrophobic chains. This structure owns more advantages, such as higher surface tension, higher micelle forming ability, and better water solubility [6–8]. At ...

### [Synthesis and properties of novel alkyl sulfate gemini...](#)

Thermal properties of the five new surfactants were studied with thermogravimetric analysis and differential scanning calorimetry, the five new surfactants showed a transition from a crystalline phase to a thermotropic liquid–crystalline phase at around ca.  $100^\circ\text{C}$ , which transformed to an isotropic liquid phase at around ca.  $165^\circ\text{C}$ . The five new surfactants critical micelle concentrations ...

### [Synthesis and Properties of a Cationic Gemini Surfactant...](#)

Download Citation | Synthesis and Properties of a Novel Gemini Surfactant with Bis-piperidinium | A novel cationic Gemini surfactant with bis-piperidinium and benzene ring (C10-CGP) was ...

### [Synthesis and properties of a novel class of anionic...](#)

A novel class of gemini pyridinium surfactants with a four-methylene spacer group was synthesized, and their surface-active properties and interactions with polyacrylamide (PAM) were evaluated by surface tension, fluorescence, and viscosity measurements. A comparison between the gemini pyridinium surfactants and their corresponding monomers was also made.

### [D-glucose derived novel gemini surfactants: synthesis and...](#)

Synthesis and physicochemical properties of novel gemini surfactants with phenyl-1,4-bis(carbamoylmethyl) spacer†. Liyan Wang ab, Yue Zhang a, Limin Ding c, Jia Liu a, Bing Zhao a, Qigang Deng \* a and Tie Yan \* b a College of Chemistry and Chemical Engineering, Qiqihar University, Qiqihar, 161006, P. R. China. E-mail: wlydlm@126.com b Key Laboratory of Enhanced Oil & Gas Recovery, Ministry of ...

### [Synthesis and Properties of Novel Gemini Surfactants with...](#)

Synthesis and properties of novel alkyl sulfate gemini surfactants Shuxin Tai College of Chemistry and Molecular Sciences, Wuhan University, Wuhan 430072, P. R. China

### [Synthesis, Characterization and Some Properties of...](#)

A series of novel gemini pyridinium surfactants with different alkyl chains were synthesized and characterized. The surface properties and aggregation behavior of the gemini surfactants in solution were studied. The gemini pyridinium salts exhibit higher surface activity than quaternary ammonium salts and can form vesicles above critical micellization concentration (CMC). The antimicrobial ...

### [Microwave-Assisted Synthesis and Properties of a Novel...](#)

The structures of the gemini surfactants were ... Synthesis, Surface Active Properties of Novel Gemini Surfactants with Amide Groups and Rigid Spacers - Hu - 2013 - Journal of Surfactants and Detergents - Wiley Online Library

### [Microwave-Assisted Synthesis and Properties of a Novel...](#)

Novel cationic gemini surfactants based on serine have been synthesized and their basic micellization properties have been assessed by tensiometry and conductimetry. These surfactants present enhanced interfacial properties and show improved performance with respect to conventional bis-quats.

### [Microwave-Assisted Synthesis and Properties of a Novel...](#)

A novel cationic gemini surfactant with the hydrophenanthrene structure has been synthesized from dehydroabietic acid by use of conventional thermal conditions and microwave irradiation. Its structure was confirmed by IR,  $^1\text{H}$  NMR, and  $^{13}\text{C}$  NMR spectroscopy. It was found that microwave-assisted synthesis is an efficient means of preparation of this cationic gemini surfactant, with shorter ...

### [Gemini Pyridinium Surfactants: Synthesis and...](#)

Abstract Novel Gemini surfactants containing amide group linkage were prepared with fatty acid, diamine and dihalide by simple organic reaction, and characterized with IR, and elemental analysis (EA). As the results show, the structures of the products obtained correspond to the target compounds designed. By surface tension scanning, these Gemini surfactants have excellent surface activity ...

### [Convenient synthesis, characterization and surface active...](#)

Synthesis and properties of a novel asymmetric gemini surfactant based on siloxane skeleton Article in Journal of Molecular Liquids 296:112073 · November 2019 with 3 Reads How we measure 'reads'

### [Synthesis And Properties Of Novel Gemini Surfactant With](#)

Download Citation | Synthesis and properties of a novel Gemini fluorocarbon surfactant | A novel Gemini fluorocarbon amphoteric surfactant with a flexible hydrophilic spacer group was synthesized ...

### [Surface Properties, Micellization, and Premicellar...](#)

Journal of Surfactants and Detergents November 2013 , Volume 16, Issue 6 , pp 913–919 | Cite as Synthesis, Surface Active Properties of Novel Gemini Surfactants with Amide Groups and Rigid Spacers

### [Synthesis and Properties of Novel Carboxylate Gemini...](#)

Serine-Based Bis-quat Gemini Surfactants: Synthesis and Micellization Properties S. Goreti Silva Centro de Investigação em Química (UP), Departamento de Química e, Bioquímica, Faculdade de Ciências, Universidade do Porto, Rua Campo, Alegre, s/n, 4169-007 Porto, Portugal, Fax: +351-220-402-7659

### [Synthesis and Surface Properties of Novel N-Alkyl...](#)

Synthesis, surface properties and antimicrobial performance of novel gemini pyridinium surfactants. Highlights•A series of novel gemini pyridinium surfactants with different alkyl chain were synthesized. •The bactericidal activity of the gemini pyridinium salt against Escherichia coli was evaluated. •The relationship between molecular structure and antimicrobial properties was discussed ...

### [The synthesis and aggregation properties of a novel...](#)

Two novel imidazoline gemini surfactants quaternary ammonium salts of di(2-undecyl (heptadecyl)-1-formyl aminoethyl imidazoline) hexanediamine (SUAIEHDI/SHAEIHDI) were synthesized in this article, and their interfacial properties were studied. It was found that SUAIEHDI had a higher CMC value than SHAEIHDI in distilled water at constant temperature ( $12 \pm 2^\circ\text{C}$ ), indicating that it was ...

### [Surface Tension and Aggregation Properties of Novel...](#)

Ruixia Niu, Chao Wang, Hua Song, Jingling Wang, Daqiang Wang, and Weidong Ren (2016). Synthesis and Surface/Interfacial Properties of Novel Dialkyl Disulfonate Gemini Surfactants Derived from 1,3,5-triazine. Tenside Surfactants Detergents: Vol. 53, No. 6, pp. 595-600.

---

## Synthesis And Properties Of Novel Gemini Surfactant With

The most popular ebook you must read is Synthesis And Properties Of Novel Gemini Surfactant With. I am sure you will love the Synthesis And Properties Of Novel Gemini Surfactant With. You can download it to your laptop through easy steps.

Synthesis And Properties Of Novel Gemini Surfactant With

