

## EPR spin trapping and DFT studies on structure of active antioxidants in bioglycerol.

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### Rok wydania

2010

### Czasopismo

Chemical Physics Letters

### Numer woluminu

497

### Strony

135-141

### DOI

10.1016/j.cplett.2010.07.101

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

Spin trapping EPR spectroscopy and DFT methods were used to investigate the structure of antioxidants present in bioglycerols [glycerol fractions (GF) derived from biodiesel production]. For this purpose the reactions of GF components and their pure reference chemicals with PBN and  $H_2O_2$  were examined via EPR measurements. The EPR parameters of formed PBN spin adducts indicated the  $\alpha$ -tocopherol origin of the trapped radicals. The comparative analysis of experimental and theoretically calculated hyperfine constants for the spin adducts strongly suggests the carbon-centered nature of the radicals generated and trapped by PBN in the bioglycerol systems.

### Adres publiczny

<https://doi.org/10.1016/j.cplett.2010.07.101>

### Strona internetowa wydawcy

<http://www.elsevier.com>