

## SYNTHESIS AND CHARACTERIZATION OF A CONJUGATED MULTIFUNCTIONAL OLIGOMER DERIVED FROM PARA-PHENYLENEDIAMINE AND CATECHOL

Ramil Rzayev <sup>a,b,c,\*</sup>, Natalia Sucman <sup>a</sup>, Eduard Monaico <sup>d</sup>, Ion Geru <sup>a</sup>, Alina Nicolescu <sup>e,f</sup>,  
Calin Deleanu <sup>e,f</sup>, Valentin Batir <sup>g</sup>, Bakhtiyar Mammadov <sup>c</sup>, Rena Akhmedova <sup>c</sup>,  
Fliur Macaev <sup>a</sup>

<sup>a</sup> Institute of Chemistry, Moldova State University, 3, Academiei str., MD-2028, Chisinau, Republic of Moldova

<sup>b</sup> Department of Chemical Engineering, Baku Engineering University, 120, Hasan Aliyev str.,  
Baku, Absheron, AZ0101, Azerbaijan

<sup>c</sup> Institute of Polymer Materials, Azerbaijan National Academy of Sciences, 124, Vurgun str.,  
Sumgait, AZ5004, Azerbaijan

<sup>d</sup> National Center for Materials Study and Testing, Technical University of Moldova, 168, Stefan cel Mare Blvd.,  
MD-2004, Chisinau, Republic of Moldova

<sup>e</sup> "Petru Poni" Institute of Macromolecular Chemistry, 41 A, Aleea Grigore Ghica Voda, RO-700487, Iasi, Romania.

<sup>f</sup> "Costin D. Nenitescu" Institute of Organic and Supramolecular Chemistry, 202 B, Independentei spl., RO-060023  
Bucharest, Romania

<sup>g</sup> Institute of Applied Physics, Moldova State University, 5, Academiei str., MD-2028 Chisinau, Republic of Moldova

\* e-mail: ramilrzayev81@gmail.com

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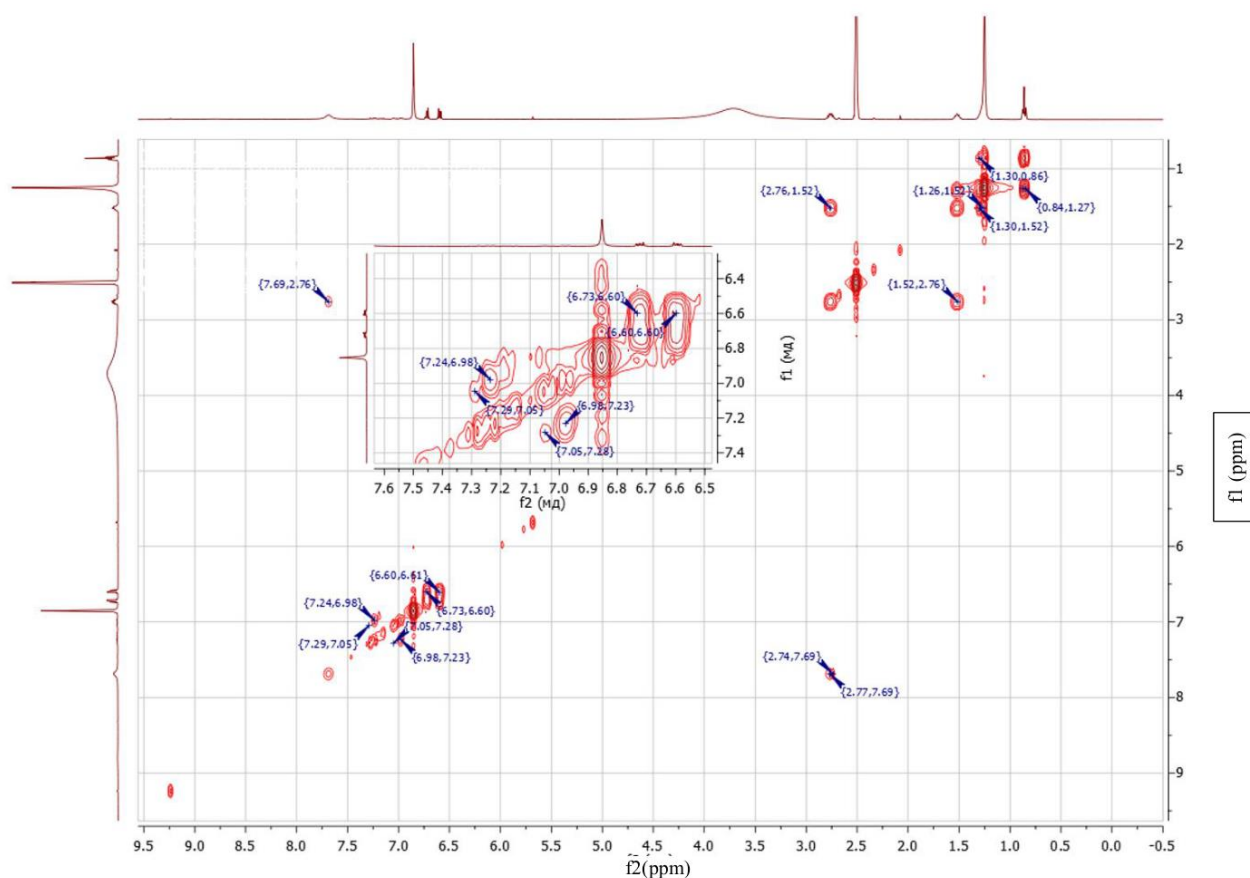


Figure S1. COSY spectrum of sample obtained via Method B.

<sup>1</sup>H<sup>13</sup>C, HSQC

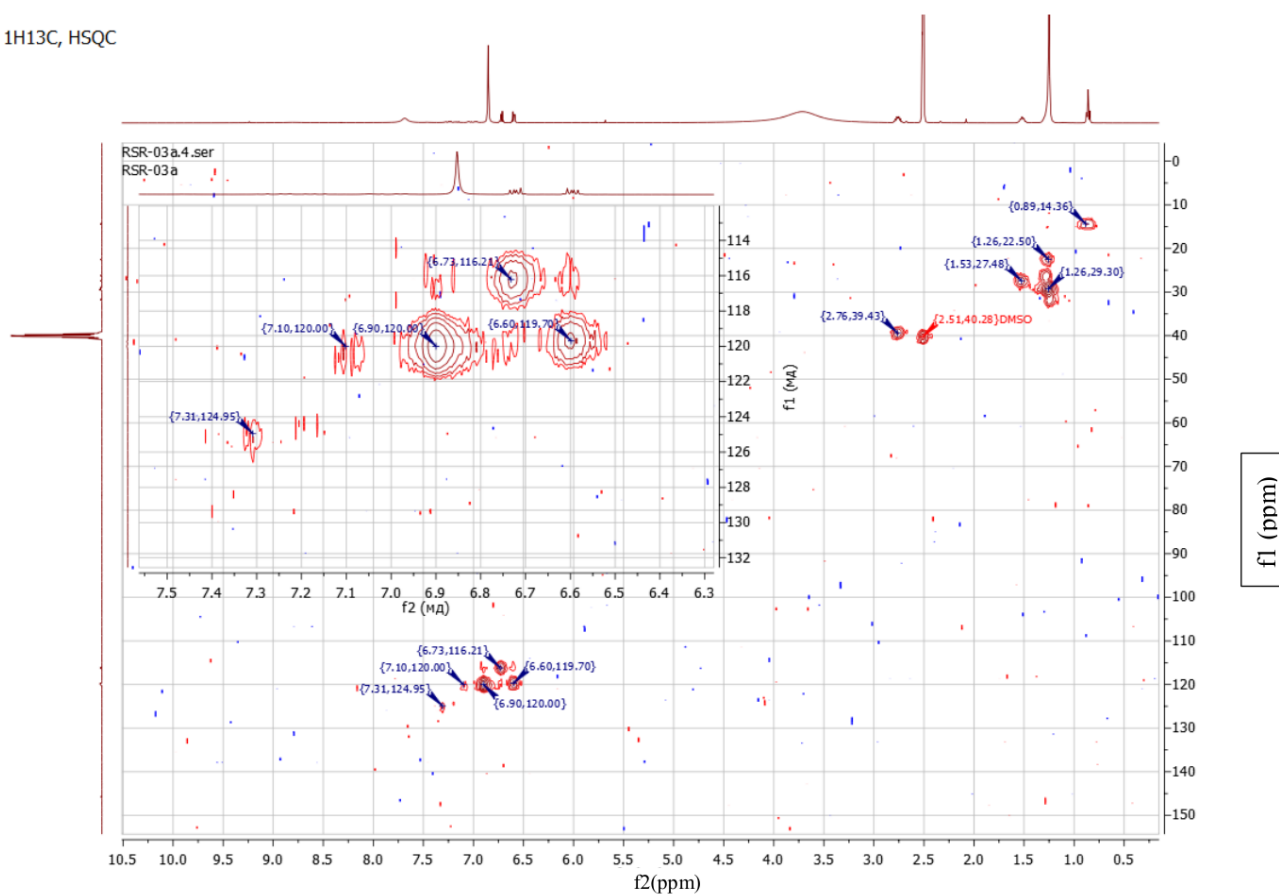


Figure S2. <sup>1</sup>H <sup>13</sup>C HSQC spectrum of sample obtained via Method B.

<sup>1</sup>H<sup>13</sup>C, HMBC

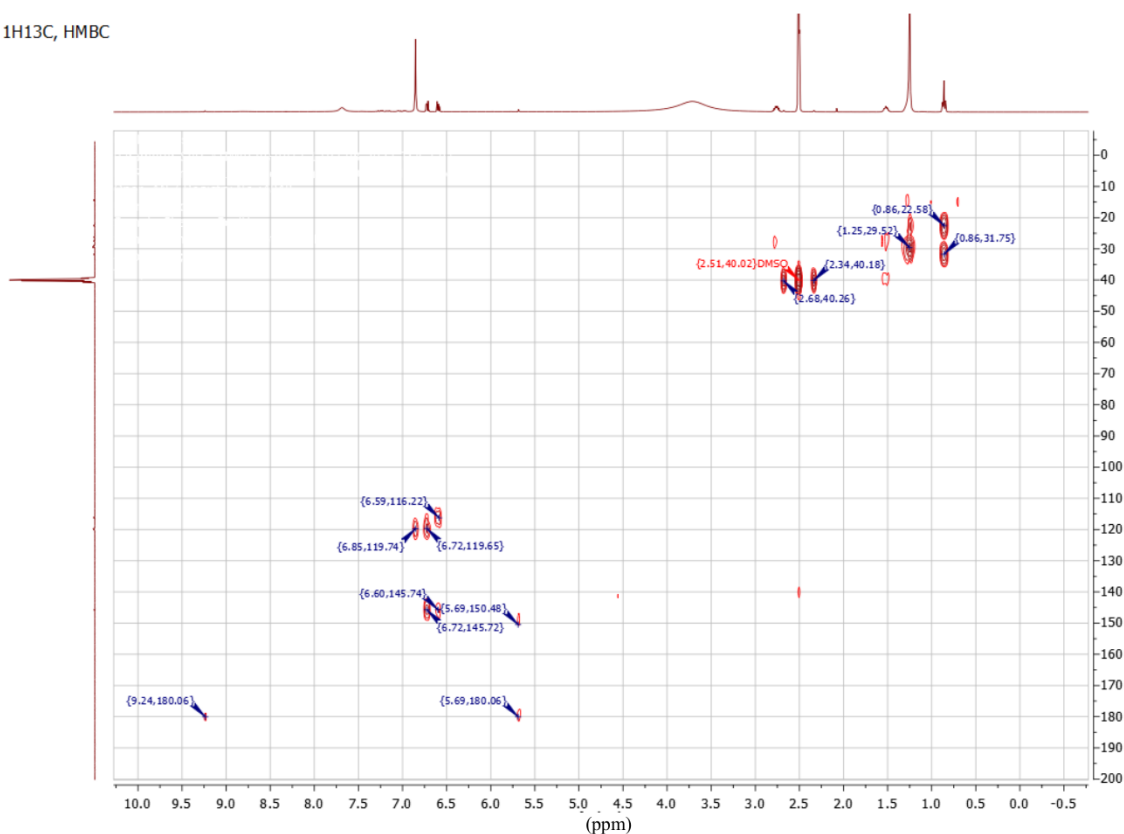


Figure S3. <sup>1</sup>H <sup>13</sup>C HMBC spectrum of sample obtained via Method B.

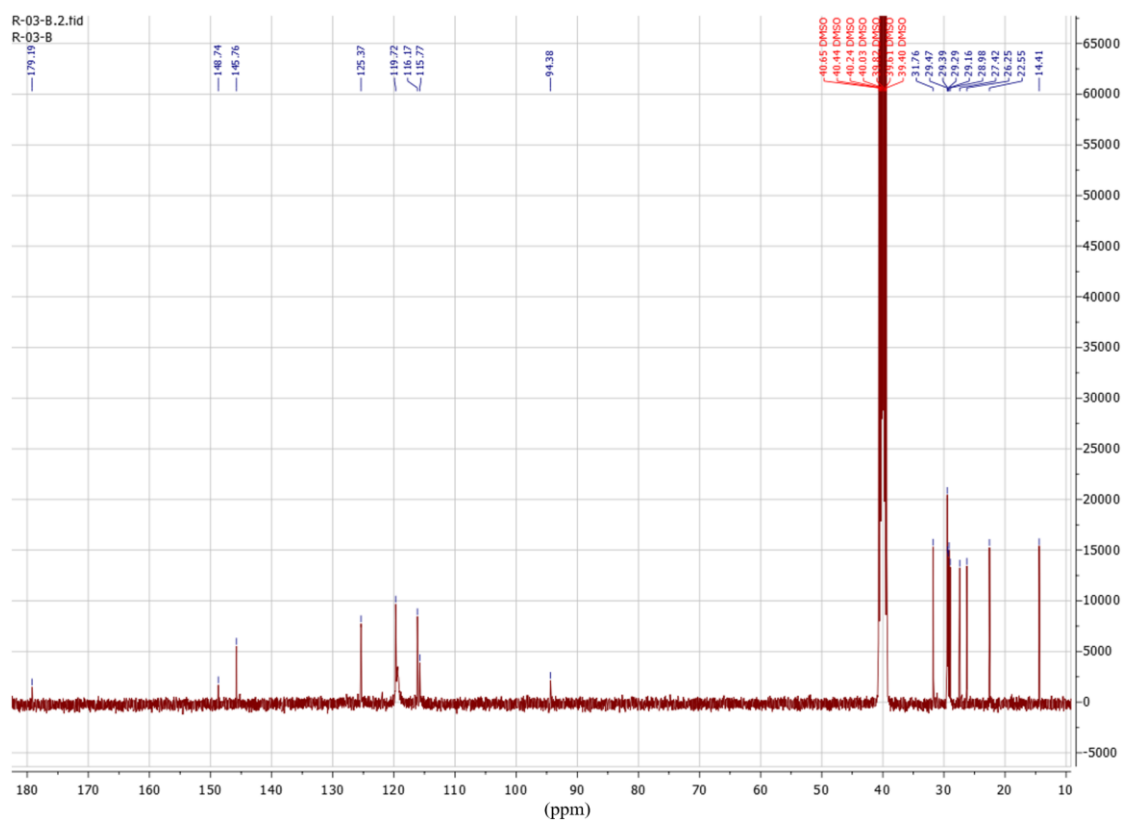


Figure S4.  $^{13}\text{C}$  NMR spectrum of sample obtained via Method C.

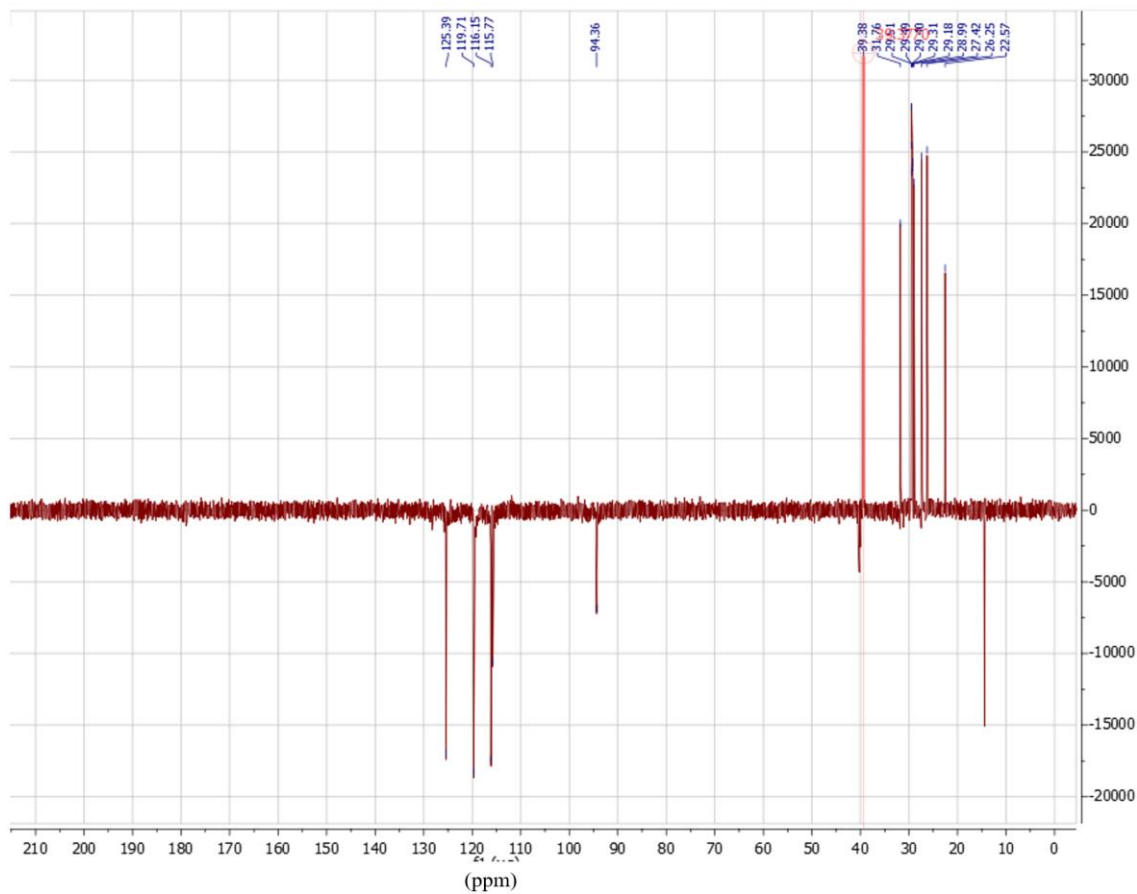


Figure S5. DEPT spectrum of sample obtained via Method C.

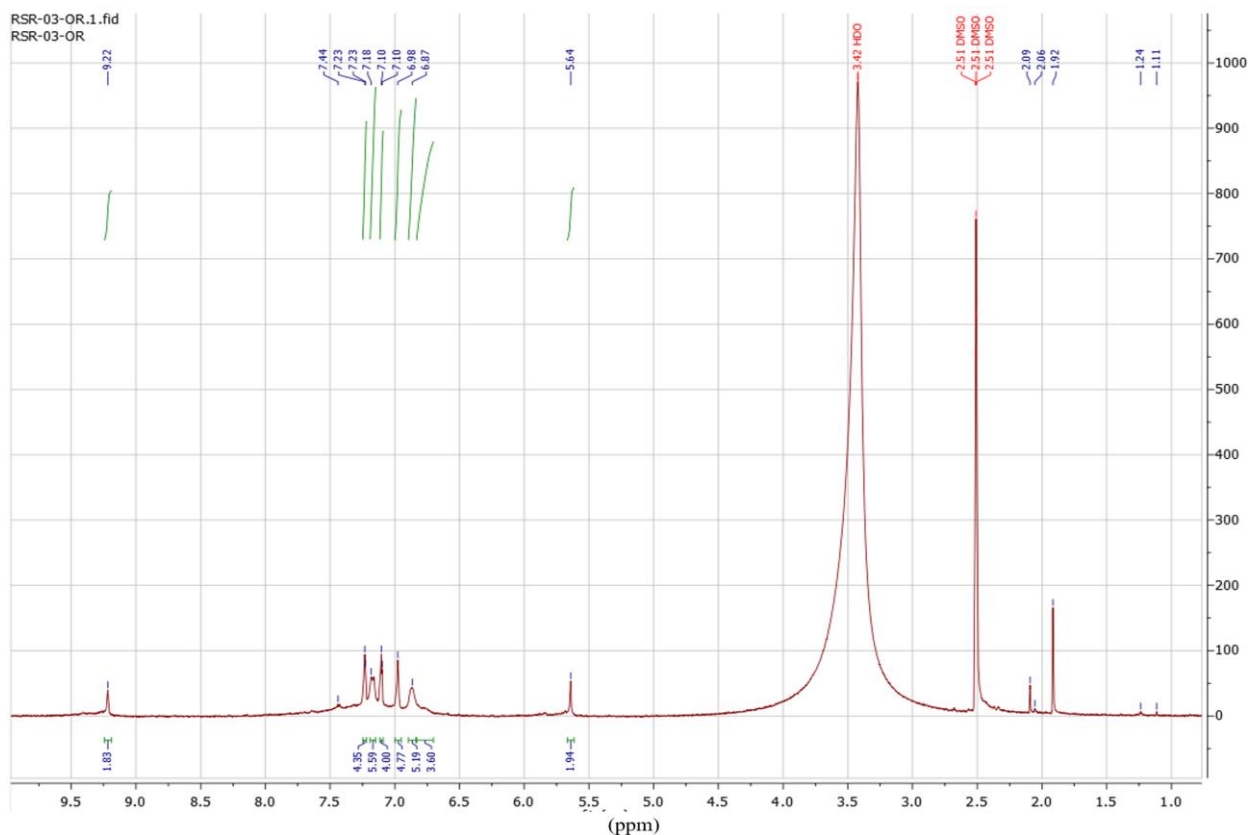


Figure S6. <sup>1</sup>H NMR spectrum of sample obtained via Method A.

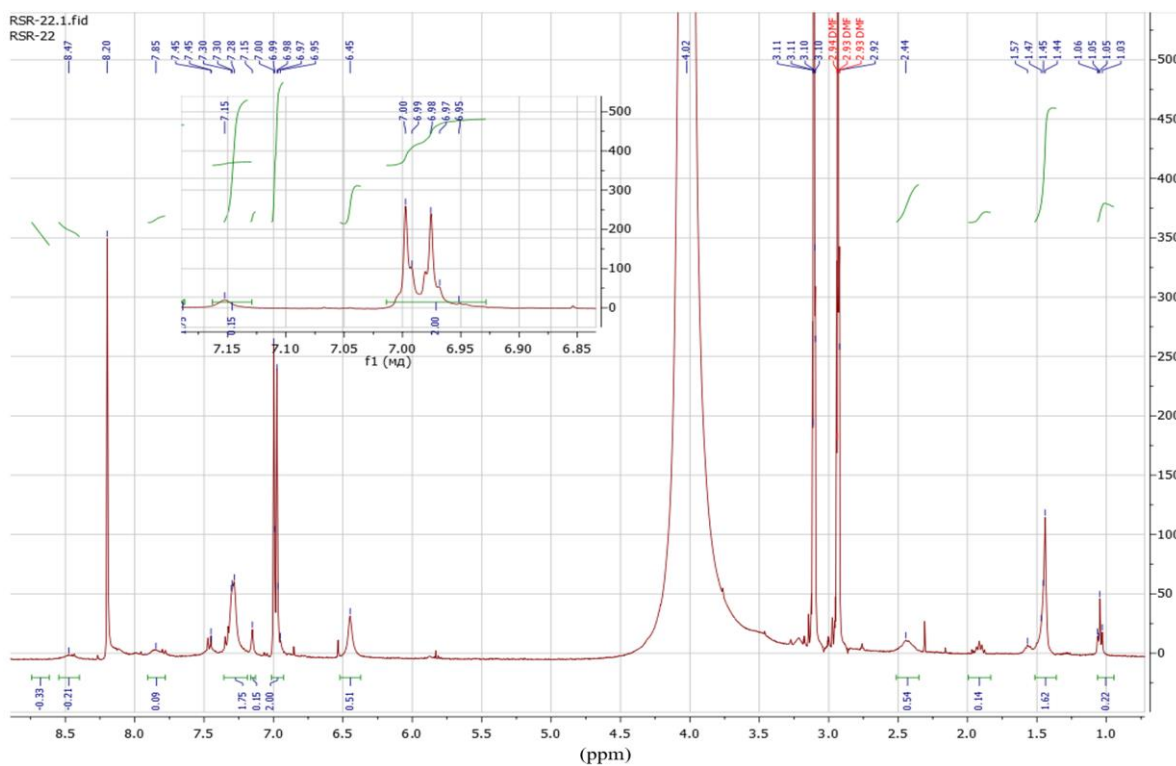


Figure S7. <sup>1</sup>H NMR spectrum of sample obtained via PPD oxidative condensation with surfactant.

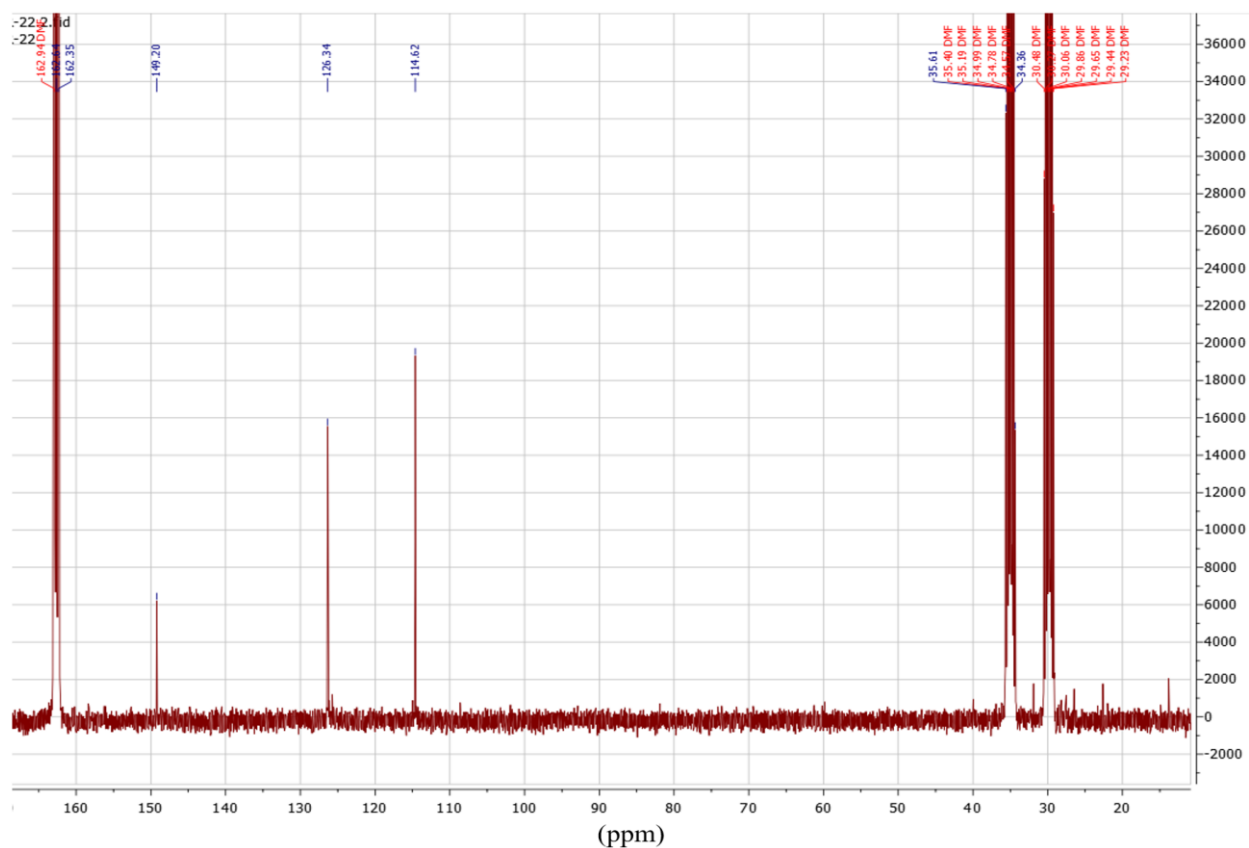


Figure S8. <sup>13</sup>C NMR spectrum of sample obtained via PPD oxidative condensation with surfactant.

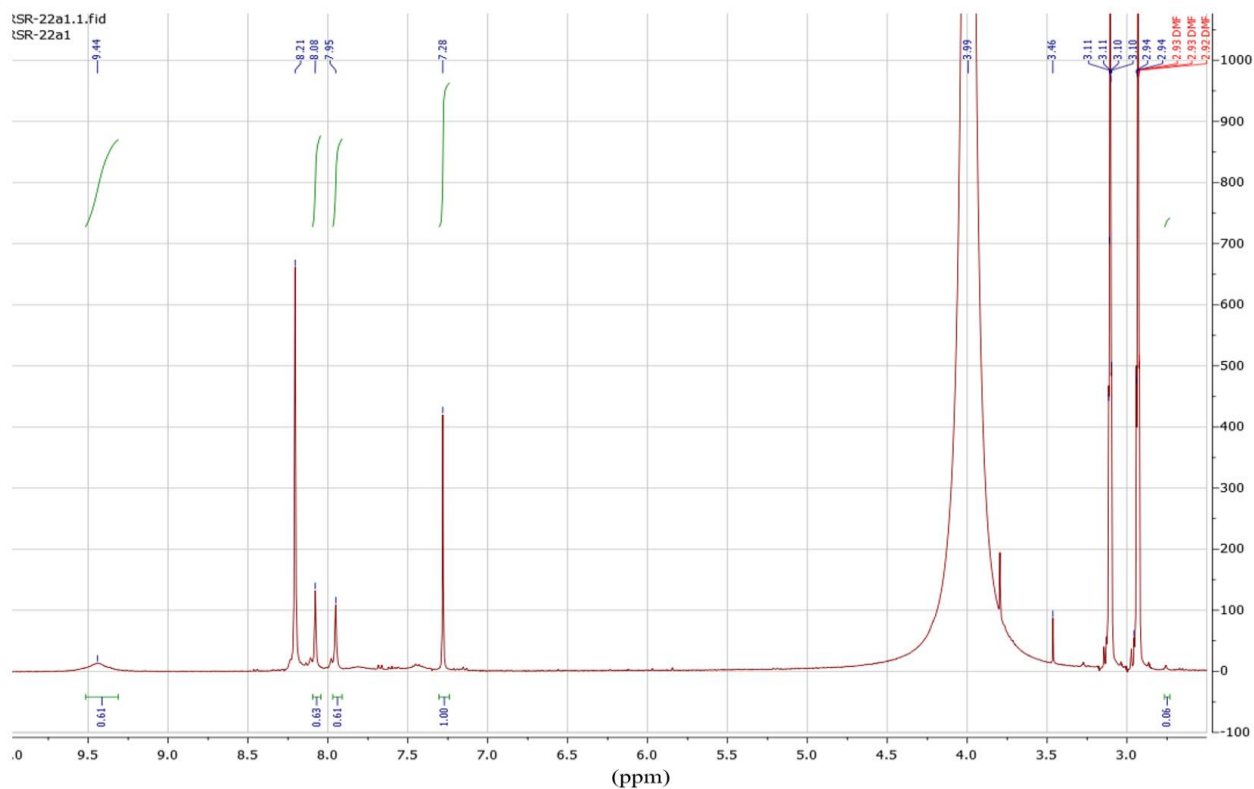


Figure S9. <sup>1</sup>H NMR spectrum of sample obtained via PPD oxidative condensation without surfactant.

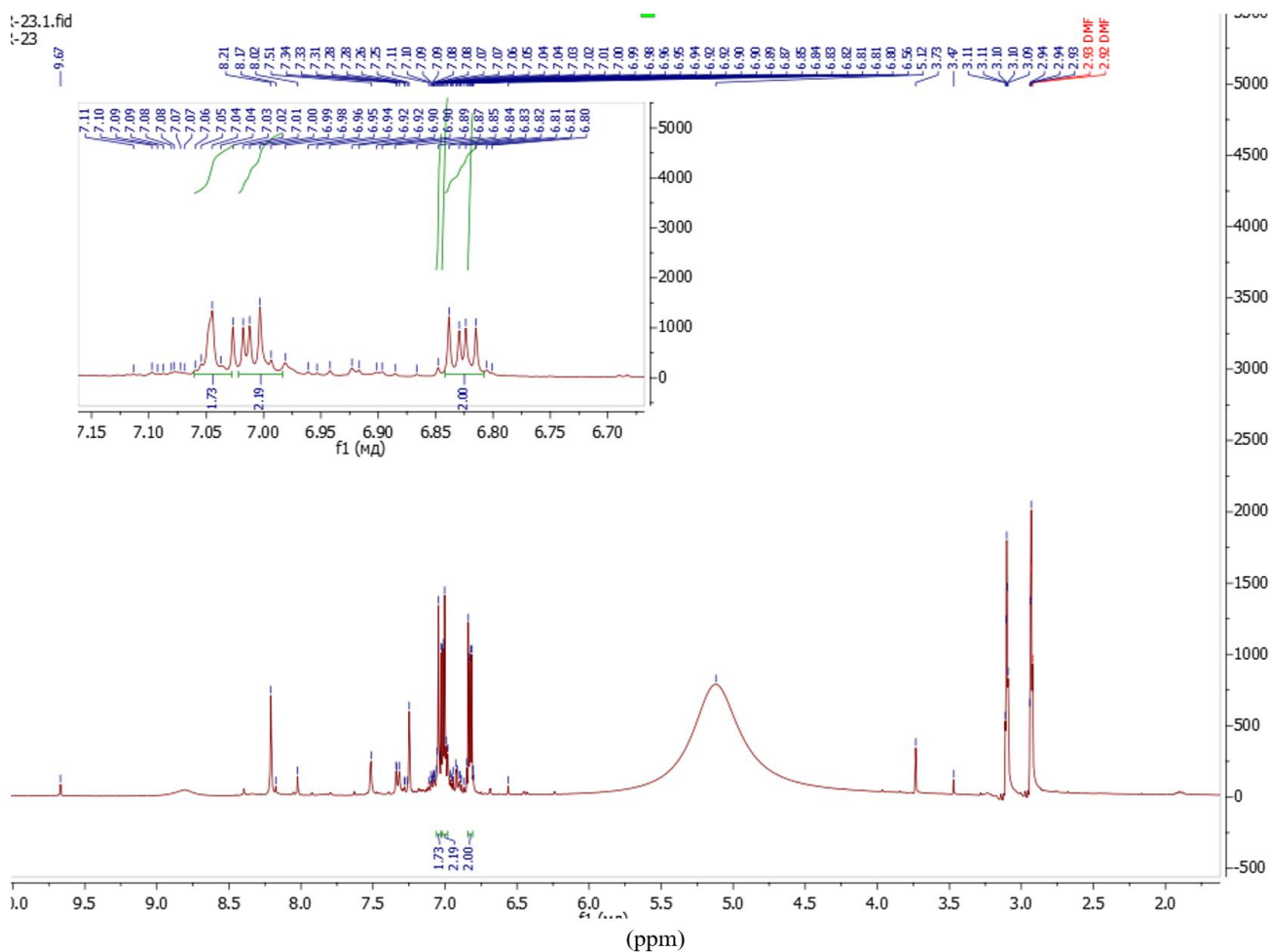


Figure S10.  $^1\text{H}$  NMR spectrum of sample obtained via 1,2-dihydroxybenzene oxidative.

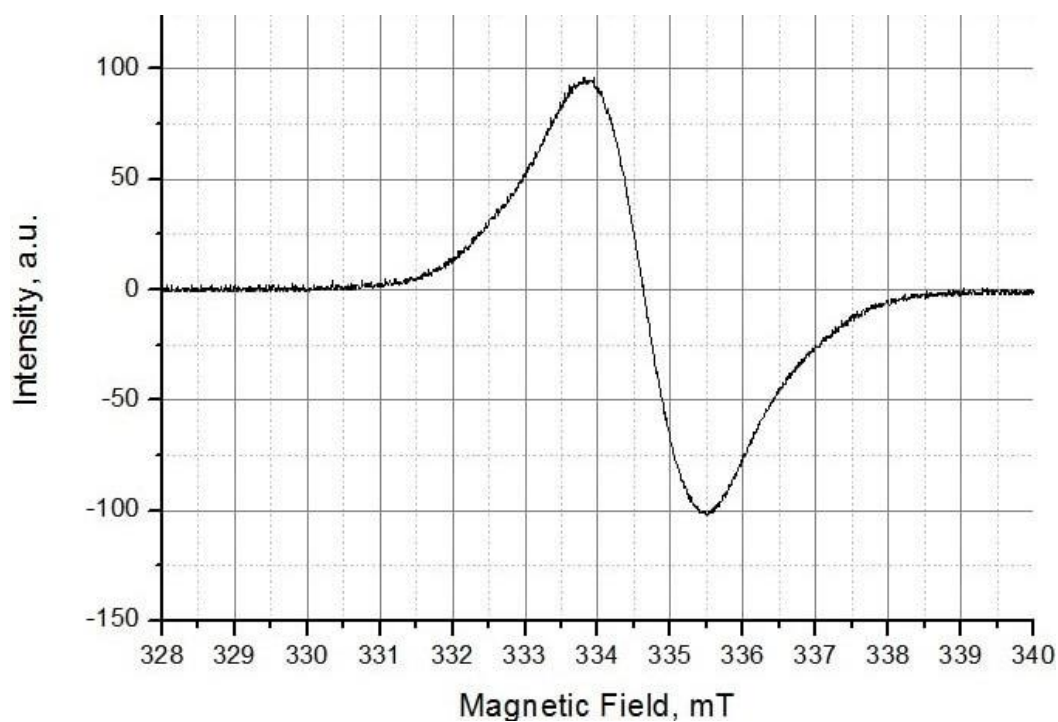


Figure S11. ESR diagram of the oligo-(PPD-co-1,2-BD).