

## **SYNTHESIS AND PROPERTIES OF NEW MONO- AND BIS-PYRROLIDINOFULLERENES**

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This report contains a results of study of reactions different bis-aldehydes with fullerenes in conditions of Prato reaction. As a result of these reactions we were received pyrrolidinofullerenes, that contain free alde-hyde group and an unknown before this bis-pyrrolidino-fullerenes, in which addends are bound by bridge.

This is a new type derivatives of fullerenes of interest for study of physical, chemical and electrochemical properties, including optical characteristic and reactions of adding on fullerenes shell and on joined addends.

Structure of obtained compounds is proved by the spectral methods ( IR, UV, NMR <sup>1</sup>H, <sup>13</sup>C), their composition is proved the analytical methods and mass-spectrums MALDI TOF, of purity is confirmed the HPLC. Electronic structure of new compounds were investigated by quantum-chemical methods on base of software packages DFT (PBE/TZ2P) and GAMESS.

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