

**Supporting Information**

**Physico-chemical and biological properties of the C<sub>60</sub>-L-hydroxyproline water solutions**

Konstantin N. Semenov<sup>1,\*</sup>, Anatolii A. Meshcheriakov<sup>1</sup>, Nikolay A. Charykov<sup>2</sup>, Viktor A.

Keskinov<sup>2</sup>, Igor V. Murin<sup>1</sup>, Gayane G. Panova<sup>3</sup>, Vladimir V. Sharoyko<sup>1</sup>, Elena V. Kanash<sup>3</sup>,

Yuriy V. Khomyakov<sup>3</sup>

<sup>1</sup>Saint-Petersburg State University, St. Petersburg, Russia, 198504, Universitetskii pr. 26; <sup>2</sup>Saint-Petersburg State Technological Institute (Technical University), St. Petersburg, Russia, 190013, Moskovskii pr., 26., <sup>3</sup>Agrophysical Research Institute, St. Petersburg, Russia, 195220, Grazhdansky pr. 14

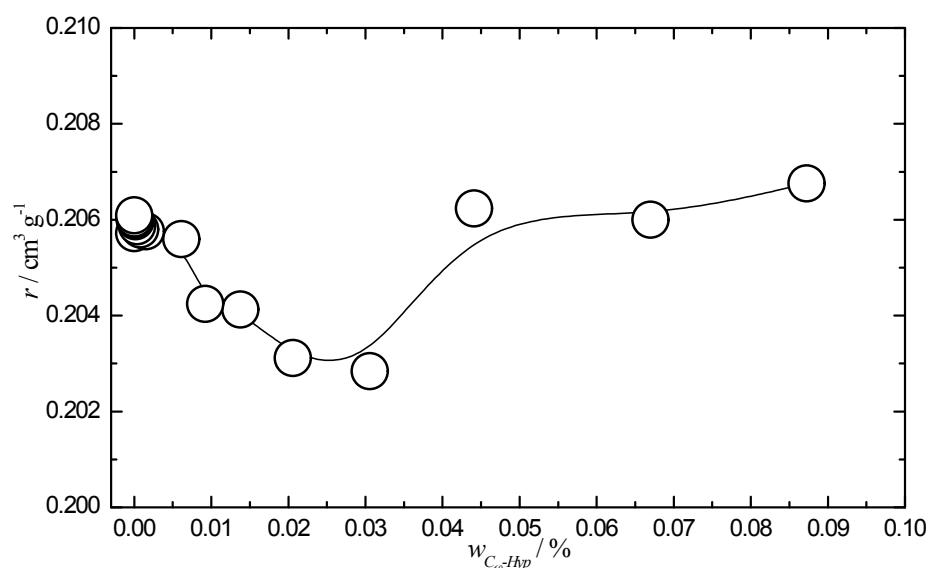


Figure 1. Mass fraction ( $w_{C_{60}-Hyp}$ ) dependence of the C<sub>60</sub>-Hyp water solution specific refraction ( $r$ ) at 298.15 K.

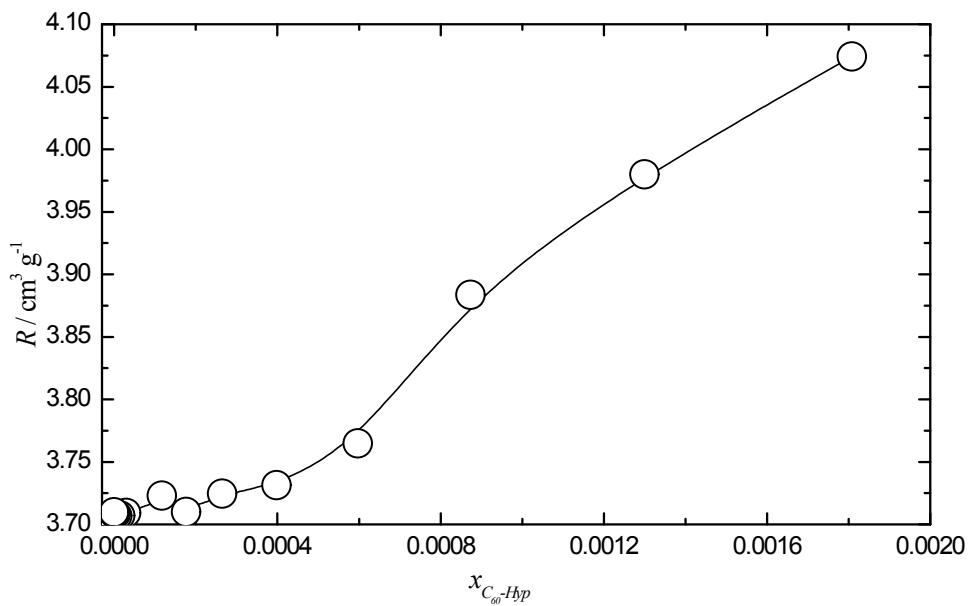


Figure 2. Mole fraction ( $x_{C_{60}\text{-Hyp}}$ ) dependence of the C<sub>60</sub>-Hyp water solution molar refraction ( $R$ ) at 298.15 K

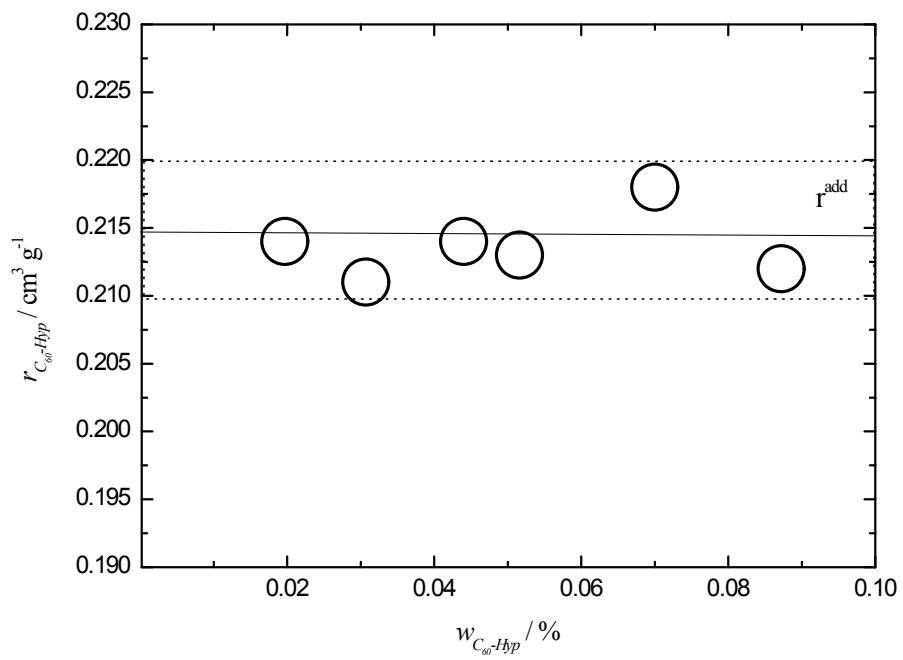


Figure 3. Specific refraction of C<sub>60</sub>-Hyp ( $r_{C_{60}\text{-Hyp}}$ ) in water solutions at 298.15 K.

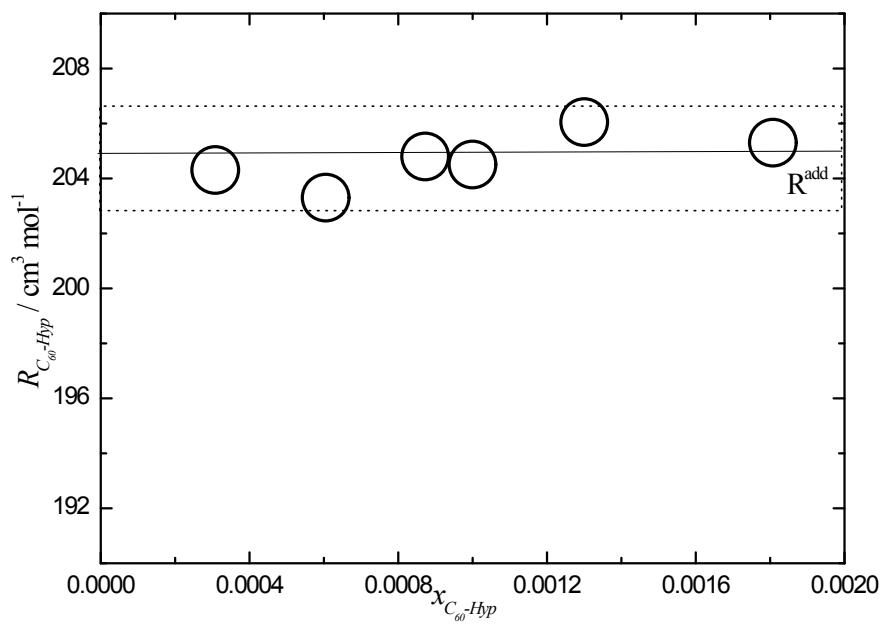


Figure 4. Molar refraction ( $R_{C_{60}-Hyp}$ ) of the C<sub>60</sub>-Hyp derivative in water solutions at 298.15 K.

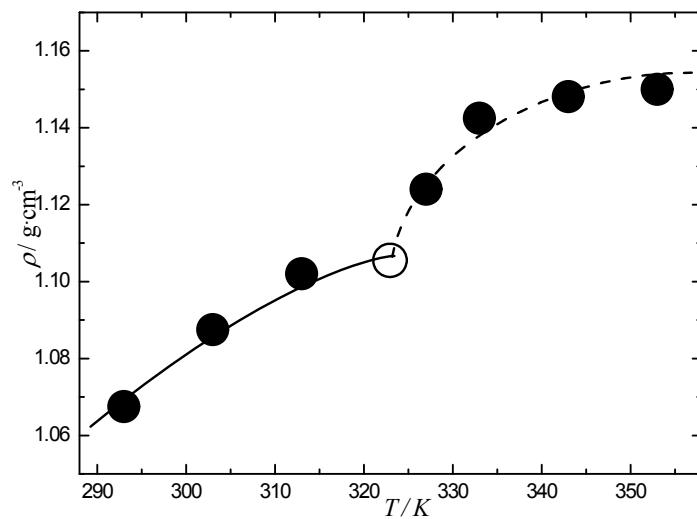


Figure 5. Temperature dependence of density ( $\rho$ ) of the C<sub>60</sub>-Hyp water solutions. Solid line corresponds to crystallization of C<sub>60</sub>(C<sub>5</sub>H<sub>9</sub>NO<sub>3</sub>)<sub>2</sub>·2H<sub>2</sub>O, dashed line corresponds to crystallization of non-hydrated fullerene derivative - C<sub>60</sub>(C<sub>5</sub>H<sub>9</sub>NO<sub>3</sub>)<sub>2</sub>. O is a nonvariant point corresponding to simultaneous saturation by both solid phases C<sub>60</sub>(C<sub>5</sub>H<sub>9</sub>NO<sub>3</sub>)<sub>2</sub>·2H<sub>2</sub>O and C<sub>60</sub>(C<sub>5</sub>H<sub>9</sub>NO<sub>3</sub>)<sub>2</sub>.