**Supplementary Material**

**of**

**Measurement and modeling of metoclopramide hydrochloride (anti-emetic drug) solubility in supercritical carbon dioxide**

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Three figures are provided in the supplementary material:

* Figure S1 compares MCP Solubility in SC-CO2 versus pressure from experiment and semi-empirical models: (a) Chrastil, (b) MST, (c) Kumar-Johnston, (d) Bartle, (e) Sofeidian and (f) Gordillo.
* Figure S2 compares MCP Solubility in SC-CO2 versus density from experiment and semi-empirical models: (a) Chrastil, (b) MST, (c) Kumar-Johnston, (d) Bartle, (e) Sofeidian and (f) Gordillo.
* Figure S3 compares the solubility of metoclopramide hydrochloride in SC-CO2 from experimental measurement and three thermodynamic models based on PR EoS: (a) PR+vdW-kij, (b) PR-WS-Wilson and (c) PR-MHV1-COSMOSAC.

 

(b)

(d)

(c)

(a)

 

 

(f)

(e)

**Figure S1.** Comparison of MCP Solubility in SC-CO2 versus pressure from experiment and semi-empirical models: (a) Chrastil, (b) MST, (c) Kumar-Johnston, (d) Bartle, (e) Sofeidian and (f) Gordillo.

  

(b)

(a)

  

(d)

(c)

  

(f)

(e)

**Figure S2.** Comparison of MCP Solubility in SC-CO2 versus density from experiment and semi-empirical models: (a) Chrastil, (b) MST, (c) Kumar-Johnston, (d) Bartle, (e) Sofeidian and (f) Gordillo.

(b)

(a)



(c)



**Figure S3.** MCP Solubility in SC-CO2 from experimental measurement and three thermodynamic models based on PR EoS: (a) PR+vdW-kij, (b) PR-WS-Wilson and (c) PR-MHV1-COSMOSAC.