### 1st Announcement

# The 8th China-Japan Symposium on Chemical Engineering

Date: Oct. 14-15, 2017

Venue: Beijing Conference Center

Address: No. 88, Laiguangying Westroad, Chaoyang District, Beijing

#### **Hosts:**

The Chemical Industry and Engineering Society of China (CIESC)

The Society of Chemical Engineers, Japan (SCEJ)

#### **Organizers:**

Tsinghua University

Institute of Process Engineering, Chinese Academy of Sciences

#### **Executive Chairmen:**

<u>China Side</u> Prof. Dr. Xing Xinhui, Tsinghua University

Prof. Dr. Ma Guanghui, Institute of Process Engineering,

Chinese Academy of Sciences

<u>Japan Side</u> Prof. Dr. Teruyuki Nagamune, The University of Tokyo

#### **Symposium Theme:**

Smart Chemical Engineering for Green and Sustainable Development of Chemical Industry

#### **Session Subjects:**

- 1. Biotechnology and biomanufacturing
- 2. Energy and environmental technology
- 3. Green chemical production
- 4. Safety technology for chemical plant
- 5. Simulation and system integration technologies for chemical processes
- 6. Application of big data and IoT (Internet of Things) to chemical plant operation

Language: English

#### **Abstract Submission:**

Abstract (Template をご参照下さい)を下記の Website から 2017 年 9 月 1 日までに投稿をお願いいたします。

http://2017.ciesc.cn/CJ

#### **Registration & Accommodation:**

参加登録と宿泊予約は下記の Website から <u>2017 年 8 月 31 日</u>までに済ませて下さい。

なお、宿泊については、中国化工学会で Beijing Conference Center 内の客室をディスカウト価格で用意して頂いております。

#### 参加と登録と宿泊予約は

https://service.kktcs.co.jp/smms2/enquete/answer/Answer.htm?cmd=new&eid=5qktej2r7df8fraihg 9b2lfy

#### **Registration Fee:**

参加費 25,000 円

2017年8月31日までに、下記口座に振込をお願いいたします。まとめて、中国化工学会に送金いたします。なお、領収書は化学工学会中国委員会事務局より送付いたします。

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## **Abstract Template**

# Prediction of Core-Annulus Solids Mass Transfer Coefficient in Gas-Solid Fluidized Bed Risers<sup>1</sup>

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Abstract Based on analysis of energy dissipation in the core region of gas-solid fluidized bed risers, a simplified model for determination of core-annulus solids mass transfer coefficient was developed according to turbulent diffusion mechanism of particles. The simulation results are consistent with published experimental data. Core-annulus solids mass transfer coefficient decreases with increasing particle size, particle density and solids circulation rate, but generally increases with increasing superficial gas velocity and riser diameter. In the upper dilute region of gas-solid fluidized bed risers, core-annulus solids mass transfer coefficient was found to change little with the axial coordinate in the bed.

Keywords solids mass transfer coefficient, core-annulus structure, turbulent diffusion, gas-solid fluidization