

Analyses for Synthesis Gas from Municipal Solid Waste Gasification under Medium Temperatures

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Supplemental material

Table S1 The reference of statistical waste composition in metropolises, China

| City\ Composition | kitchen residue | plastic | textile | glass | paper | wood | metal | ash | others | moisture | literature year | reference |
|----------------------|--------------------|---------|---------|-------|-------|------|-------|-------|--------|----------|--------------------|---|
| South China | 53.3 | 16.5 | 2.14 | 1.47 | 7.95 | | 0.1 | 4.73 | 7.57 | 62.2 | 2015 | [1] Analysis of Composition Characteristics of Municipal Solid Waste in South China |
| Tianjin | 63.22 | 14.63 | | | 11.74 | | | 3.89 | 6.84 | | | |
| Tianjin Huancheng | 60.94 | 15.24 | | | 11.13 | | | 6.58 | 6.14 | | 2014 | [2] Physical Compositions and Influence Factors of Municipal Domestic Waste in Tianjin |
| Tianjin binhai | 61.49 | 17.19 | | | 13.36 | | | 0.92 | 7.08 | | | |
| Asu Beijin | 58.81 | 13.16 | 1.17 | 0.78 | 6.61 | 2.19 | 0.67 | 2.11 | | 64.81 | 2013 | [3] Compositions analysis and anaerobic digestion characteristics on seasonal municipal solid waste |
| Lanzhou | 47.6 | 12.99 | 2.47 | 1.22 | 8.2 | 1.74 | 0.23 | 25.52 | | 44.24 | 2013 | [4] Physical composition and moisture characteristics of municipal solid waste of Lanzhou city |
| Chengdu | 58.15 | 9.9 | 0.75 | 0 | 13.85 | 2.45 | 0 | 14.6 | 0.25 | 62 | | |
| Yibin | 54.67 | 6.3 | 1.04 | 7.37 | 9.6 | 2.99 | 0.1 | 17.96 | 1.3 | 55.39 | 2015 | [5] Pollution and source analysis of heavy metals in municipal solid waste in Sichuan |

| | | | | | | | | | | | | |
|--------------------|--------|-------|-------|------|--------|------|-------|-------|-------|-------|------|---|
| Dazhou | 68.01 | 9.91 | 0 | 0 | 18.3 | 0.9 | 1.23 | 2.7 | 0.95 | 64.84 | | |
| Chongqing | 72.97 | 8.4 | 3.16 | 1.46 | 9.34 | 1.91 | 0.36 | 2.4 | | 54.15 | 2014 | [6] Study on Composition and Physical Characteristics of Municipal Solid Waste in Chongqing |
| Shanghai | 62 | 19 | 3 | 1 | 11 | 1 | 1 | 2 | | 60 | 2011 | [7]GHG emissions from Chinese MSW incineration and their influencing factors - Case study of one MSW incineration plant in Shanghai |
| Songjiang Shanghai | 53.65 | 20.15 | 2.61 | 2.17 | 13.53 | 4.03 | 0.52 | 3.25 | 0.09 | | 2015 | [8] Physical component characteristics of domestic waste in Songjiang District, Shanghai |
| Shenzhen | 44.1 | 21.72 | 7.4 | 2.53 | 15.34 | 1.41 | 0.47 | 6.87 | 0.14 | | 2013 | [9] The statistical analysis of characteristics of municipal solid waste for Shenzhen |
| unknow | 58.67 | 14.47 | 2.86 | 2.95 | 11.99 | 2.48 | 0.9 | 5.68 | | | 2013 | [10] Greenhouse gas emission inventories from waste sector in China during 1949–2013 and its mitigation potential |
| Average of China | 55.86 | 12 | 3.16 | | 8.52 | 2.94 | | 18.36 | | | 2014 | [11] Thermogravimetric characteristics of typical municipal solid waste fractions during co-pyrolysis |
| Hangzhou | 58 | 22 | 2 | | 13 | 5 | | | | 9.5 | 2017 | [12] Effect of Operating Parameters and Moisture Content on Municipal Solid Waste Pyrolysis and Gasification |
| Average | 58.215 | 14.59 | 2.443 | 1.91 | 11.466 | 2.42 | 0.507 | 7.838 | 3.373 | | | |

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