

## Guide to Chalmers publications on Chemical-Looping Combustion (CLC)

Numbers below refer to numbers on homepage (up to nr 362):

<http://www.entek.chalmers.se/~anly/co2/co2publ.htm>

All publications in the list except 1, 6, 8 and 13 are on CLC.

### **THESES**

#### **Lic\* or PhD theses:**

i.e.: 14,18,30,31,41,44,57,68,69,76,78, 82, 95,98,101,116,129,140, 150, 153, 182, 183, 189, 212, 217, 245, 246, 248, 271, 316

Below theses are shown in square brackets, [nn].

\*Swedish Licentiate Thesis, scope corresponds to 2-3 reviewed publications, i.e. 2.5 years research or ½ Swedish PhD Thesis.

### **TYPE OF WORK**

#### **Laboratory experiments with particles:**

2,4,9,11,16,17,[18],19,21,26,29,30,[31],32,33,36,37,42,[44],45,47,48,49,55,56, 59,61,63,64,66,67,[68],[69],73,77,[78],80,81,83,84,85,86,87,88,89,91,92,[95], 99,100,[101],102,107,109,110,111,112,113,117b,117g,118,120,121,122,124,1 28,[129],131,132,133,135,136,137,142,143,144,145, 148, 156, 165, 163, 172, 173, 176, 179, [189], 190, 192, 193, 194, 196, 197, 199, 201, 202, 203, 207, 216, [217], 218, 222, 223, 236, 237, 244, [245], 247, 258,259,261,262,264, 265, 266,269,270,274,275,276,280,282,283,291,295,296,302,306,307,309, [316],317,[318],324,342,343,344,347,352,353

Characterization: 295,306,328; from 10 kW gas: 102; from 100 kW: 252, From 12 MW: 312

#### **Operation in 10 kW chemical-looping combustor with gas:**

20,24,27,72,97,[98], [140], 184,229,278,313,[316],[325]

- Of which Ni: 20,24,27, 72, 97, [98], [140]; Fe: 20 ; CaMn: 184, 229, 278,313,[316],[325]

#### **Operation in 10 kW chemical-looping combustor with oil:**

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#### **Operation in 300 W chemical-looping combustor (gaseous fuel):**

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- Of which: Ni: 34, 40, [41] 46, 79, [82], 96, 103, 105; Mn: 38; Fe: 58, 155; Cu: 205; ilmenite: 106, 158; Mn ore: 126, 311, 329; oxide scales: 130; CaMn: 119, 208, 229, 243,313,[316]; MnFe: 126,201,329;

MnFeSi: 206, 230, 251, [325]; MnSi: 242, 272, [325]; comparisons (Ni, Mn, Fe): 55, 59; mixtures (ilmenite with Ni): 106 LD-slag: 335

**Operation in 300 W chemical-looping combustor (liquid fuel):**

149, 151, [153], 168, 175, [246]

- Of which: Ni: 149; Mn:151; Cu:151; ilmenite: 168; comparisons (Ni, Mn, Cu ilmenite): 175

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- Of which ilmenite: 70,71,74,[76],93,108,114,115,[116],117e,123,127,138,139,[140], 177; ilmenite + lime: 138, 177; Mn ore: 139, 177, 228, 273, 288, 289, 322,[323]; Mn ore + lime: 177; MnCa: 227, 241, 253,[323]; MnSiTi: 314; LD-slag: 335
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- Of which ilmenite: 152, 158, 167, 178, 180, 181, [182], 204, 220, 228; ilmenite+Mn ore: 267, 268; iron ore: 254, 267, 277; Mn ore: 289, 303, 305, 308, 322, 336, 341; CaMn: 341
- Of which biomass: 303, 336, 341

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**MnFe:**

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**MnFeMg:**

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**MnSi:**

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- Of which MnSiTi: 314, [323], [325], 347

**MnFeSi:**

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110, 269, [271],

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\*First author not having performed their work at Chalmers.