Ltage shy

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1???? 2???? 3? ??? 4? ??? 5? ???

????????????? ?????

??????????????????????????????????2-1??
?????

?1???1100?1250????????????????

?2???

??? ???

????????????? ???

2.1 ?????????????

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$2C+O_2=2CO+221.2kJ$ (2-1)

$2CO+O_2=2CO_2+566.0$ kJ (2-2)

$C+O_2=CO_2+393.8$ kJ (2-3)

???????????????CO_2?????????

$CO_2+C=2CO-172.6kJ$ (2-4)

2.2 ???????????

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???????????????

$C+2H_2O=CO_2+2H_2-90.2$ kJ (2-5)

$C+H_2O=CO+H_2-131.4$ kJ (2-6)

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$C+CO_2=2CO-172.6$ kJ (2-7)

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3. ??????????????????? ????????????????????????2-2??????

?2-2 ?????????????????????

??20~40mm??

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??????????????????

?1????

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?2????

???

$C+O_2$?CO_2+394.55kJ/mol

????????????????1100~1200?????????????????????????CO_2???????????CO_2??????????

?3????

??????????????????????????????CO_2?????N_2??????????3~6m/s??????????10~40cm/s????????????????????CO_2????CO?????CO??????

CO2+C?2CO-173.09kJ/mol

2CO«C+CO2+172.2kJ/mol

??????????CO?CO2??

?????????????????????????????????????

C+H2O?CO+H2-131.0kJ/mol

C+2H2O?CO2+2H2-88.9kJ/mol

??CO2?????????????????????

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?4????

??700???H2?CH4?C2H6