

Table S2: SER TGA cycle with regeneration in CO₂ and no reduction between cycles (100CO₂)

Step	Flow	Gas composition	Temperature	Time/rate
Reforming S/C = 3	875 ml/min	14/43/43 vol% CH ₄ /H ₂ O/N ₂	650°C	35min
Heating to regeneration temperature	500 ml/min	100 vol% CO ₂	650 to 925°C	9°C/min
Regeneration	500 ml/min	100 vol% CO ₂	925°C	6min
Cooling to reforming temperature	500 ml/min	95/5 vol% N ₂ /H ₂	925 to 650°C	3.5°C/min