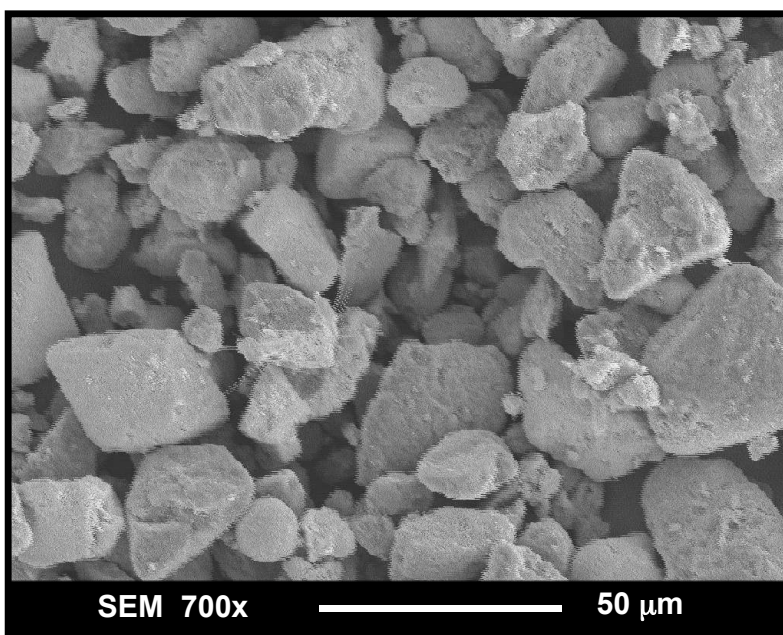


(a) EOR sample (TOS = 364 h) after multiple washings



(b) EOR sample (TOS = 364 h) after Soxhlet extraction

Figure 26. SEM images of WPS3516-4 (100 Fe/3 Cu/5 K/16 SiO₂) catalyst at the end of STSR run SB-09703 after (a) multiple washings; (b) Soxhlet extraction.

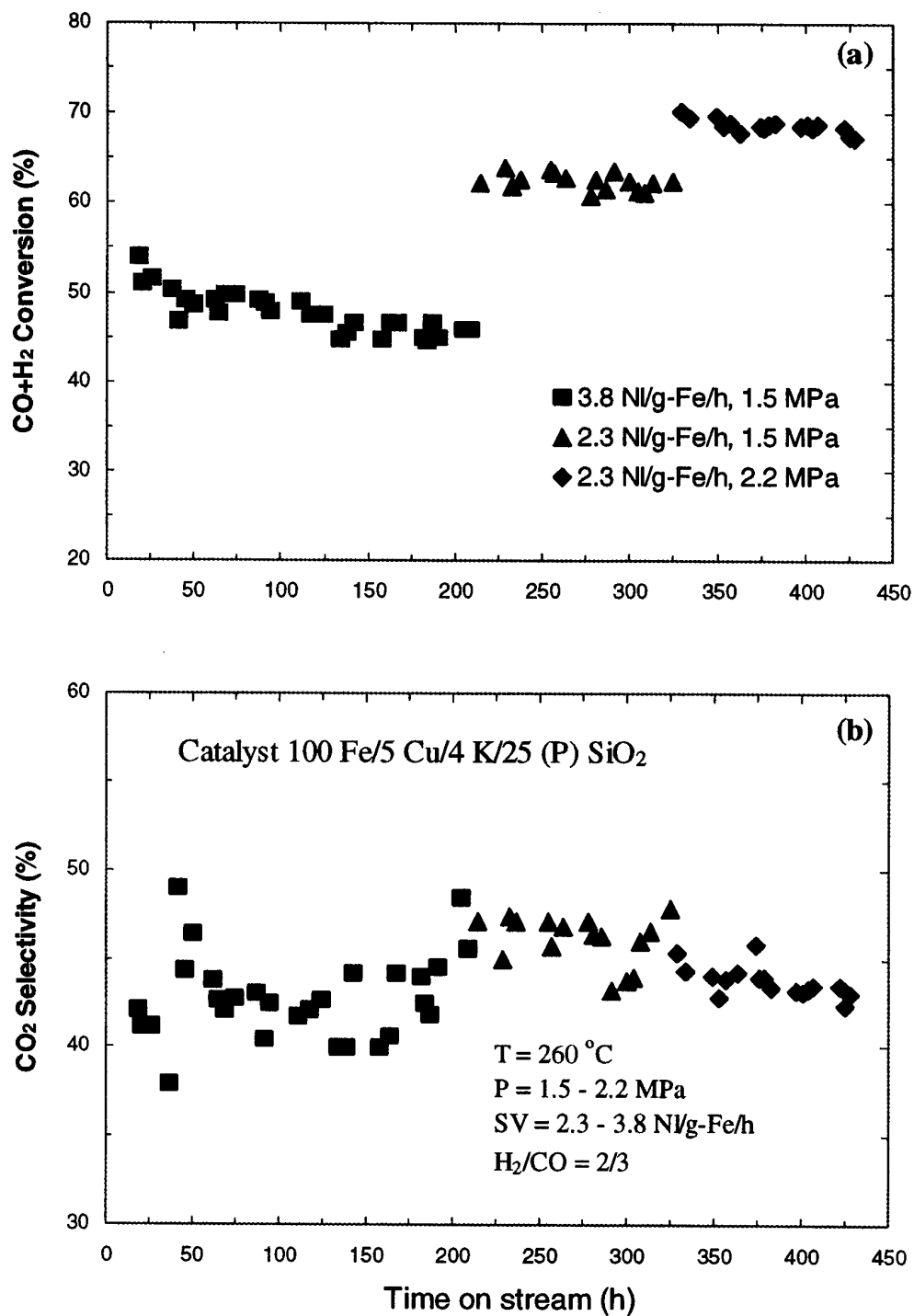


Figure 27. Syngas conversion (a) and CO₂ selectivity (b) as a function of time for STSR test SB-32901 of the Ruhrchemie catalyst (100 Fe/5 Cu/4 K/25 (P) SiO₂).

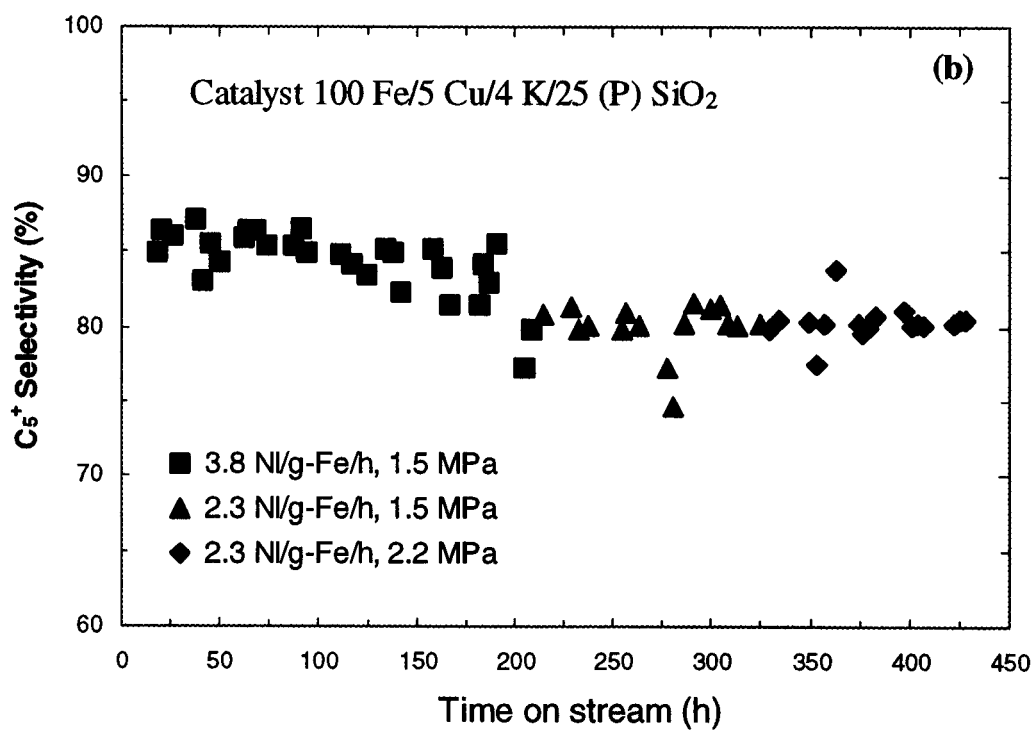
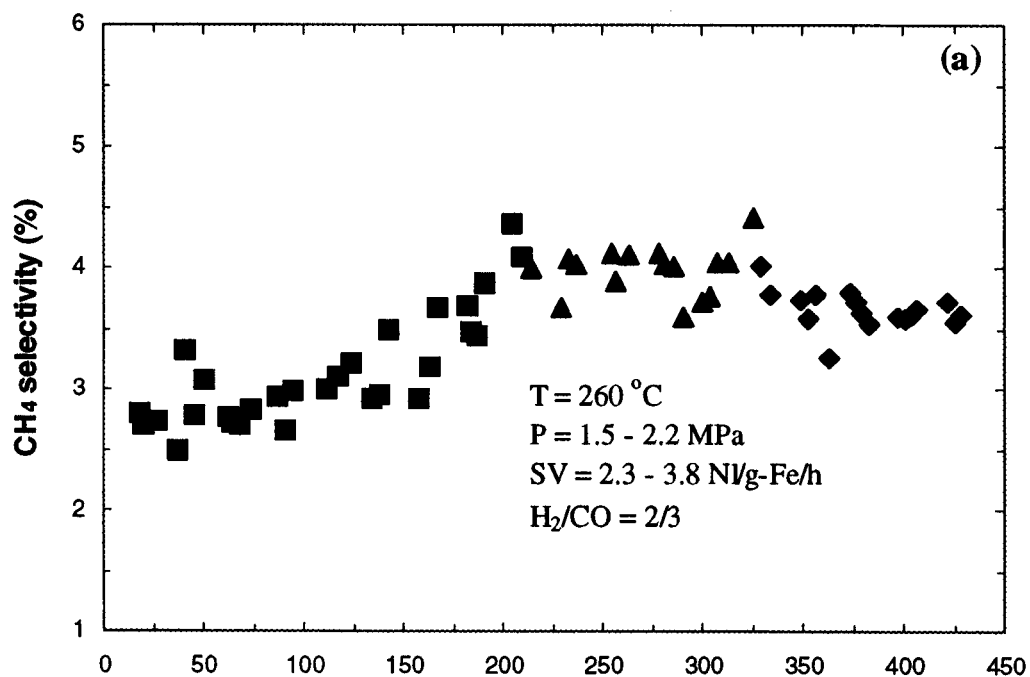


Figure 28. CH₄ selectivity (a) and C₅⁺ selectivity (b) as a function of time for STSR test of the Ruhrchemie catalyst (100 Fe/5 Cu/4 K/25 (P) SiO₂).

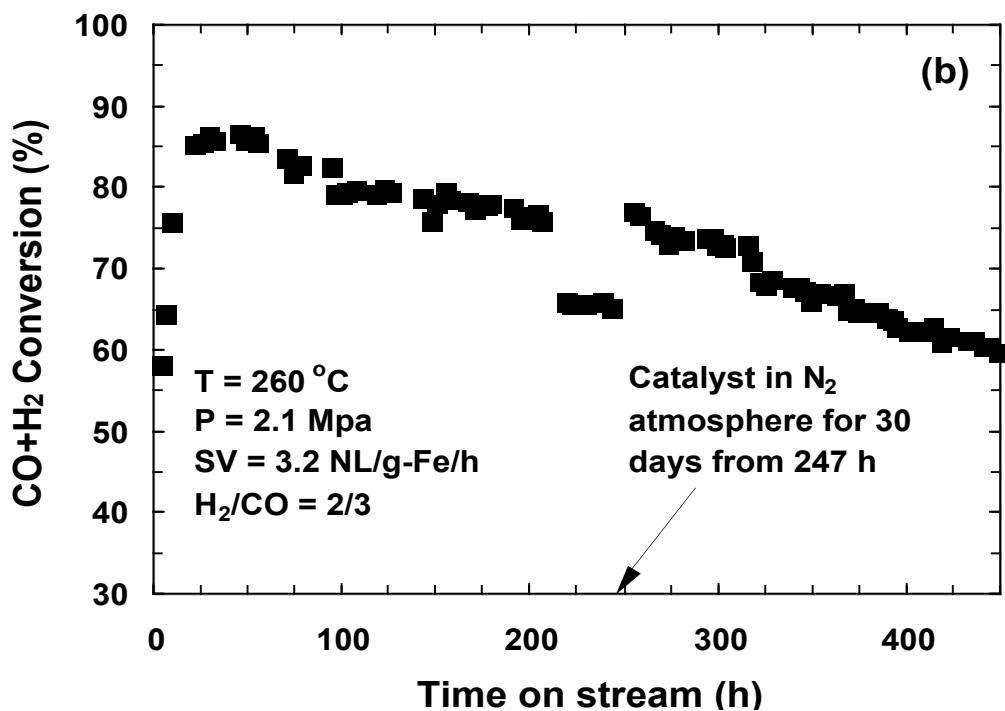
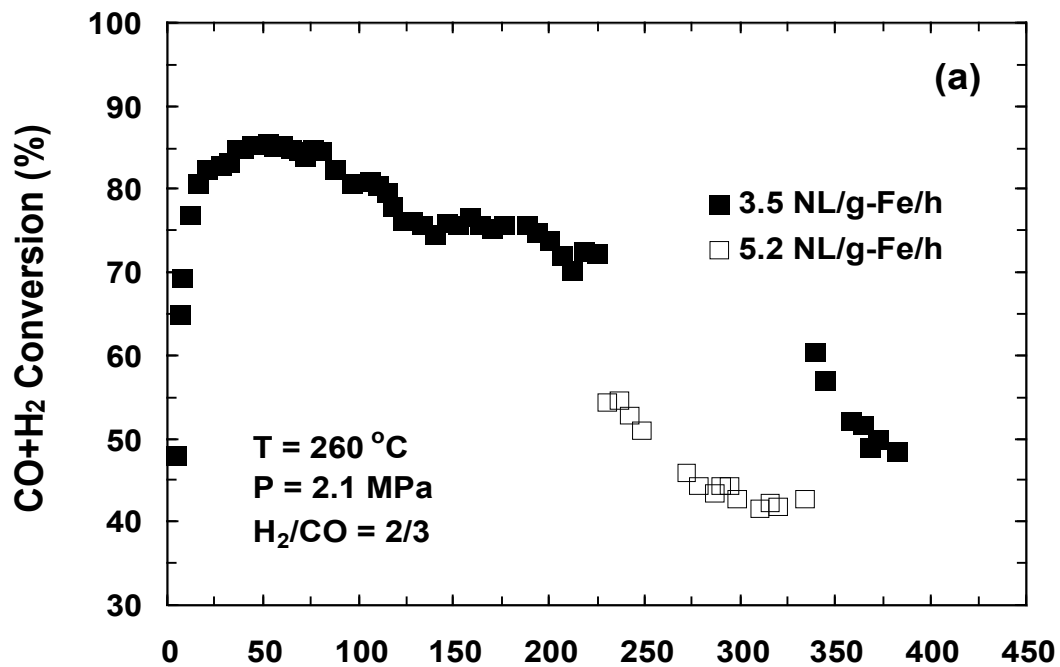


Figure 29. Syngas conversion as a function of time for STSR tests of spray-dried catalysts
 (a) 100 Fe/5 Cu/4.2 K/11 (P) SiO₂ (SB-20601)
 (b) 100 Fe/5 Cu/4.2 K/1.1 (B) SiO₂ (SB-34701).

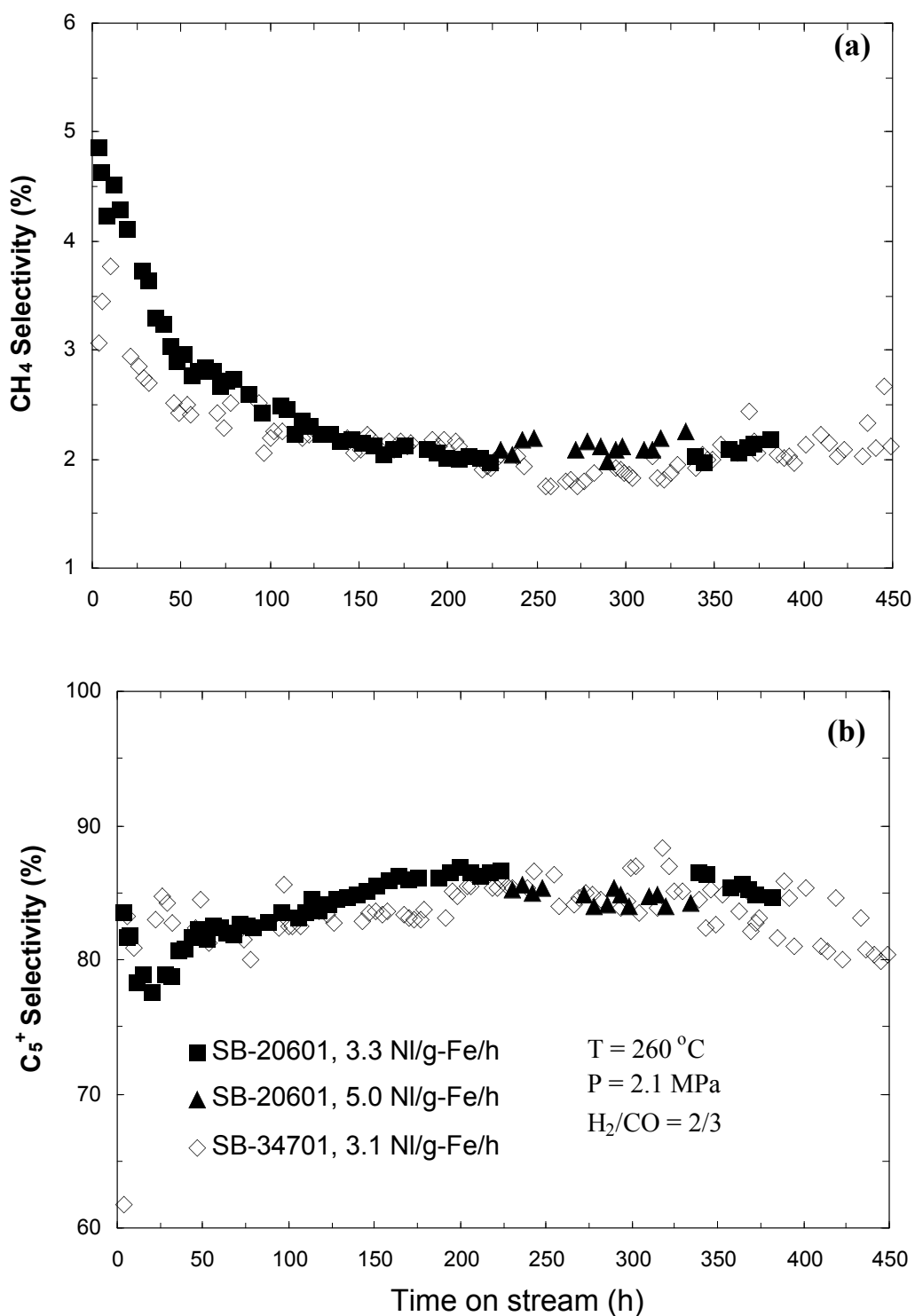


Figure 30. Change in CH₄ selectivity (a) and C₅⁺ selectivity (b) with time and process conditions in STSR tests of spray-dried catalysts: 100 Fe/5 Cu/4.2 K/11 (P) SiO₂ (SB-20601) and 100 Fe/5 Cu/4.2 K/1.1 (B) SiO₂ (SB-34701).

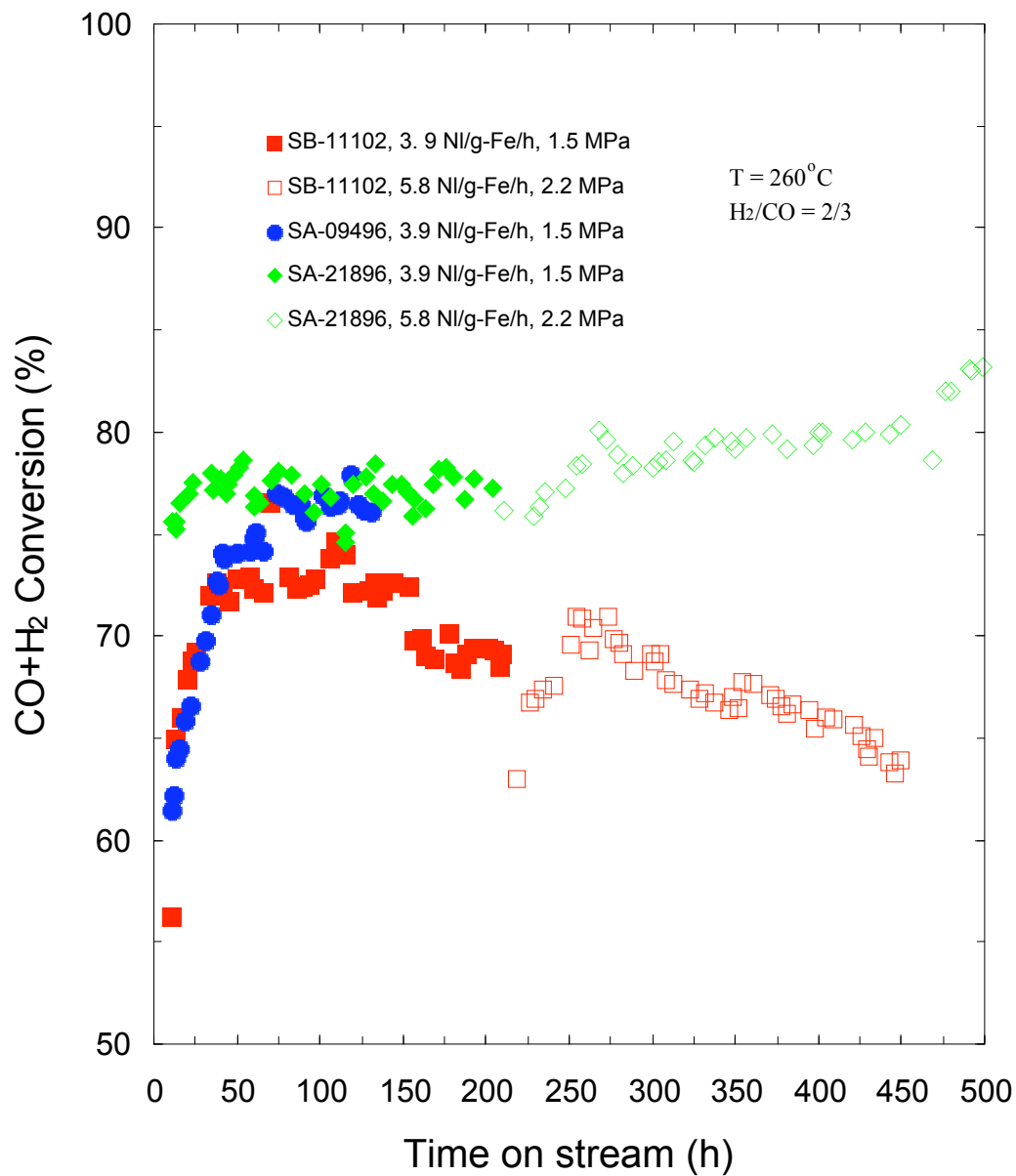


Figure 31. Change in syngas conversion with time and process conditions in STSR tests of precipitated (SA-09496 and SA-21896) and spray-dried (SB-11102) 100 Fe/3 Cu/4 K/16 (P) SiO₂ catalysts.

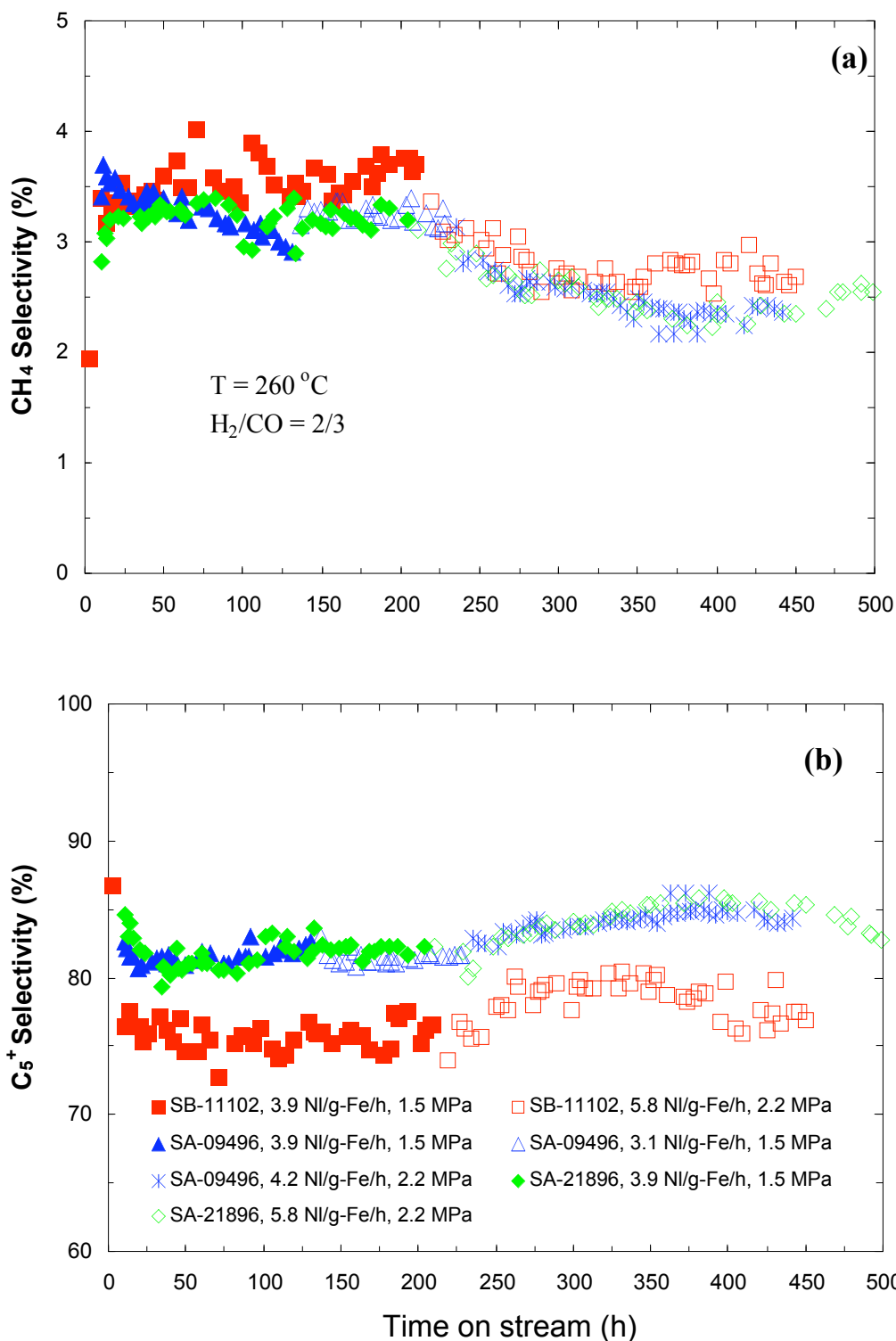


Figure 32. Change in CH₄ selectivity (a) and C₅⁺ selectivity (b) with time and process conditions in STSR tests of precipitated (SA-09496 and SA-21896) and spray-dried (SB-11102) 100 Fe/3 Cu/4 K/16 (P) SiO₂ catalysts.

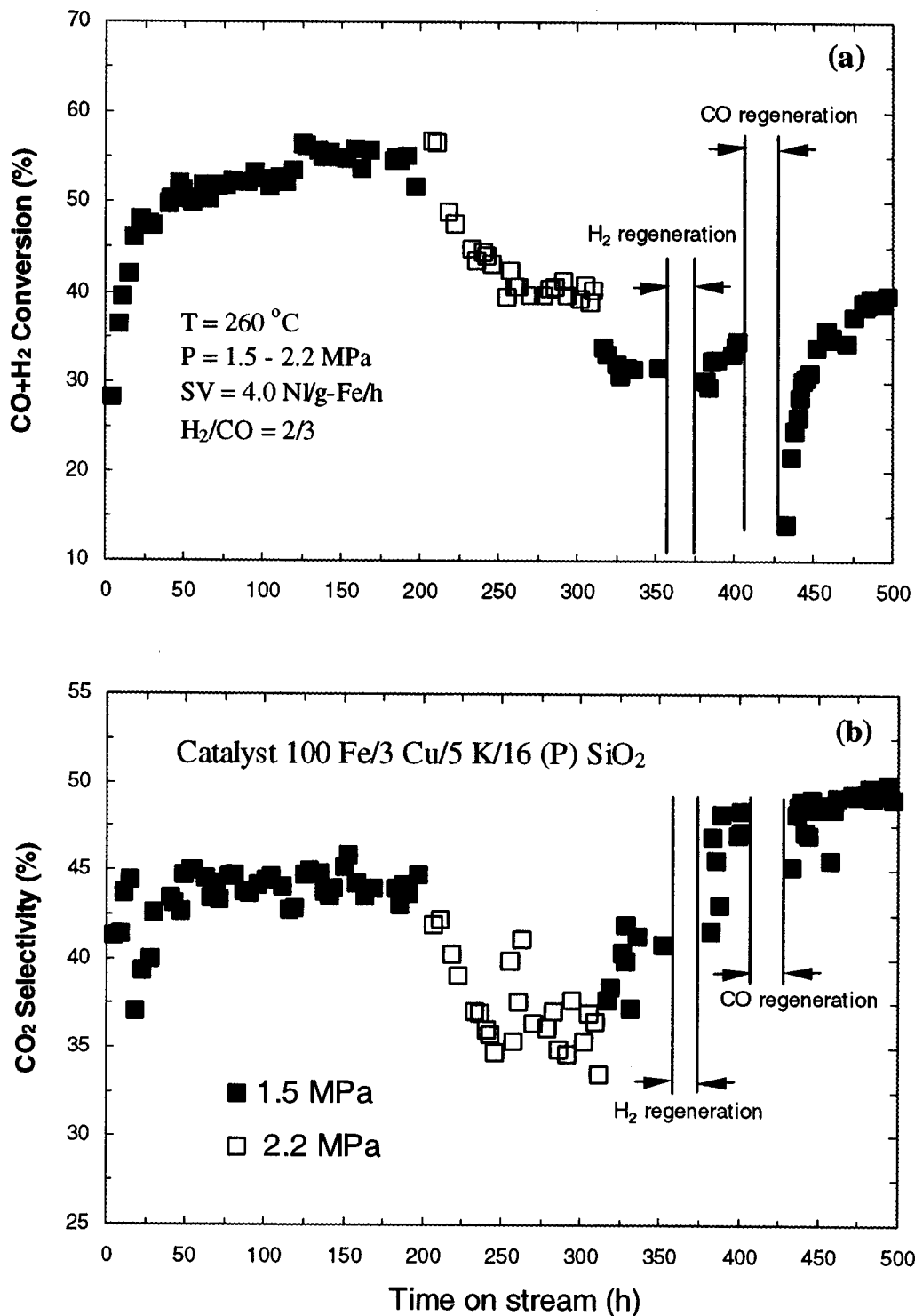


Figure 33. Syngas conversion (a) and CO₂ selectivity (b) as a function of time for STSR test of precipitated 100 Fe/3 Cu/5 K/16 (P) SiO₂ catalyst (SB-19102).

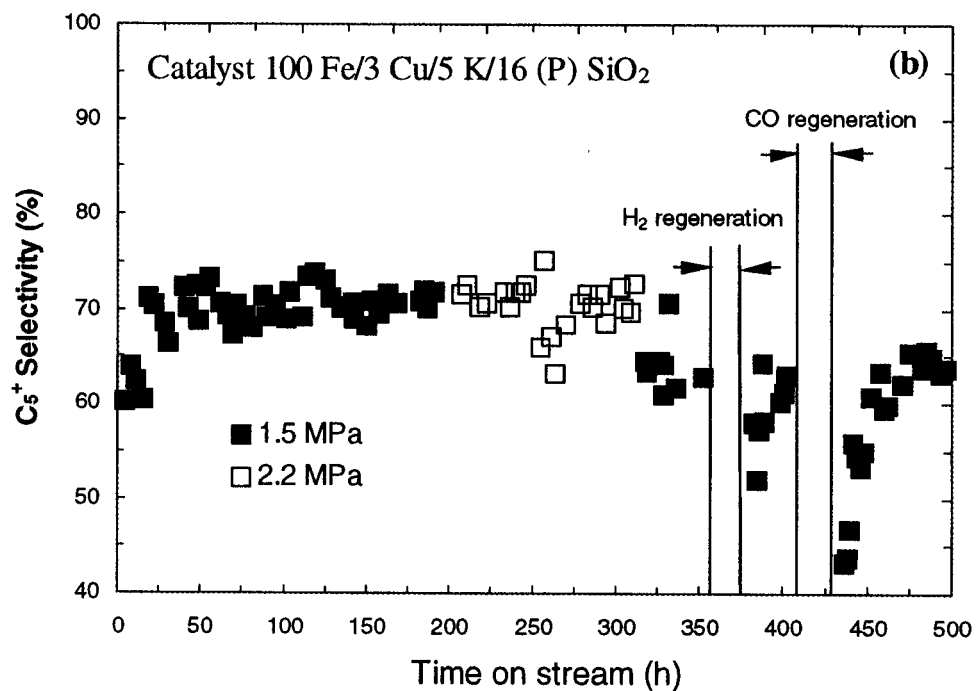
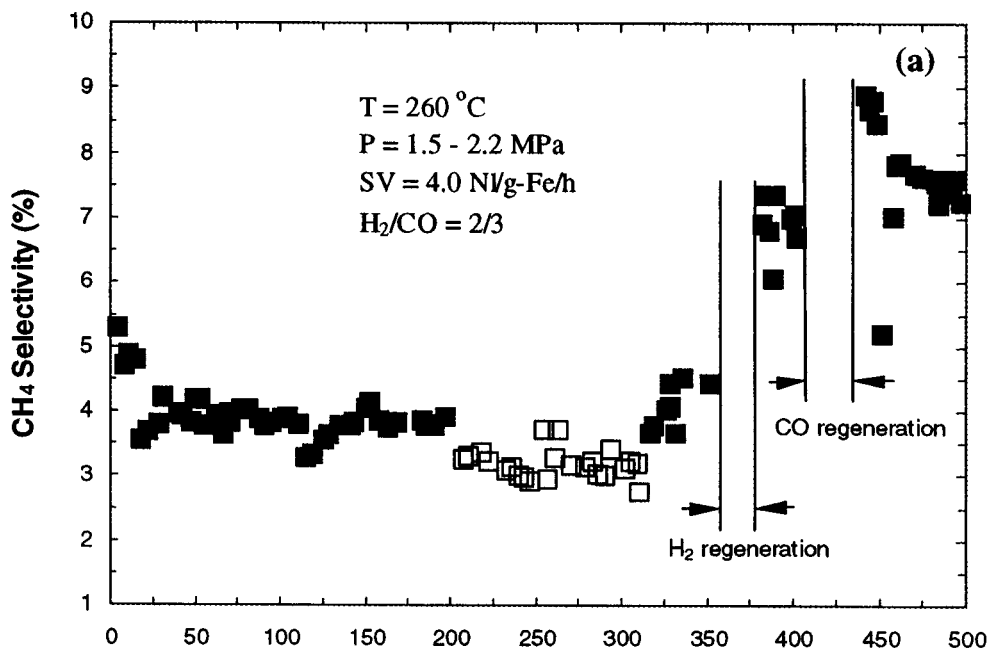


Figure 34. CH₄ selectivity (a) and C₅⁺ selectivity (b) as a function of time for STSR test of precipitated 100 Fe/3 Cu/5 K/16 (P) SiO₂ catalyst (SB-19102).

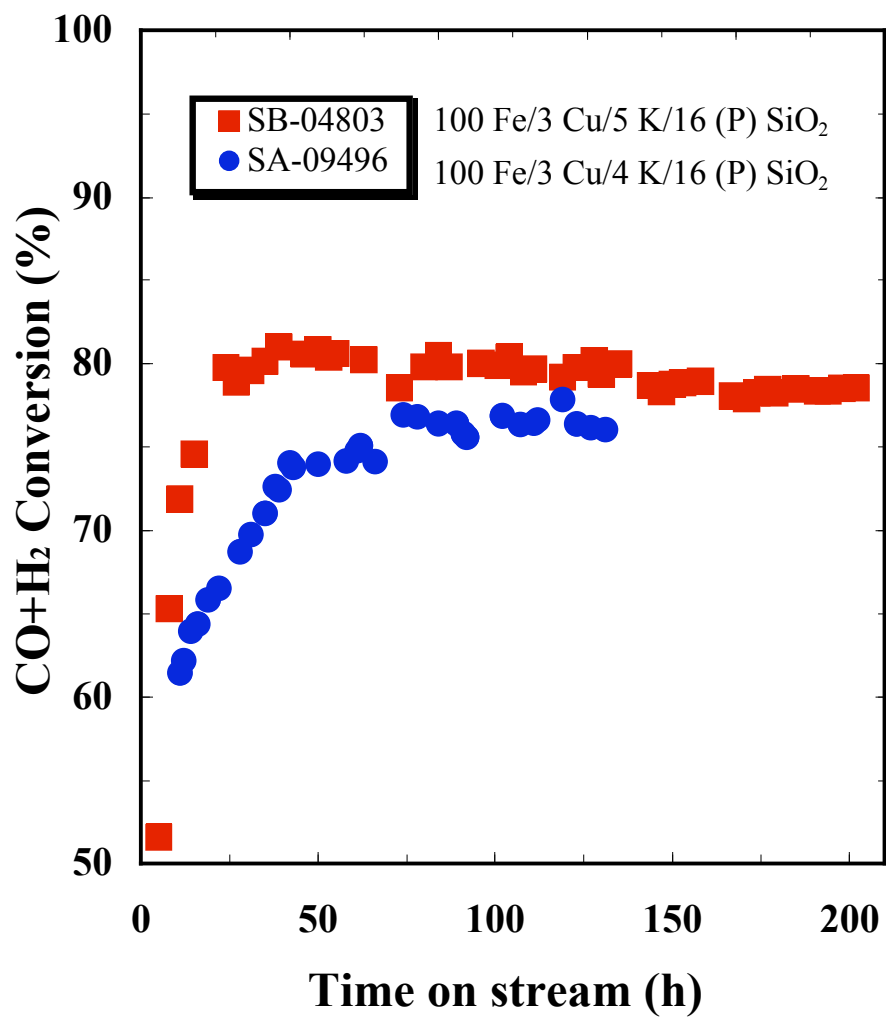


Figure 35. Comparison of syngas conversions of two precipitated Fe catalysts at baseline process conditions (260°C, 1.5 MPa, 3.9 - 4 NI/g-Fe/h, H₂/CO = 2/3).

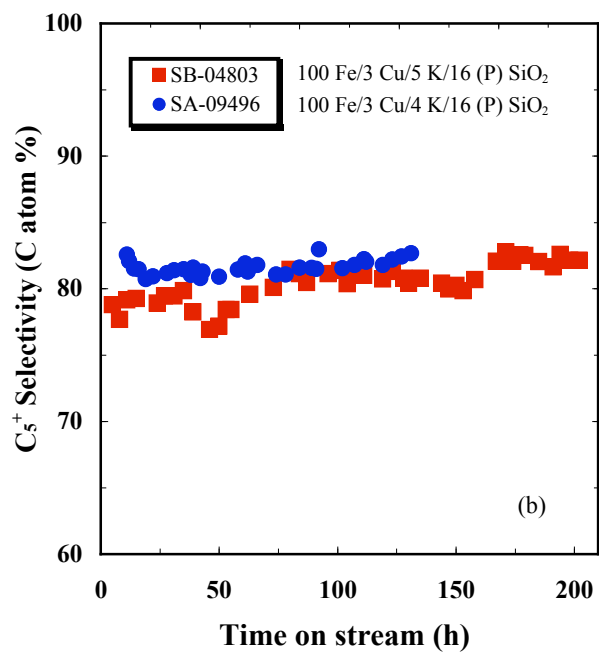
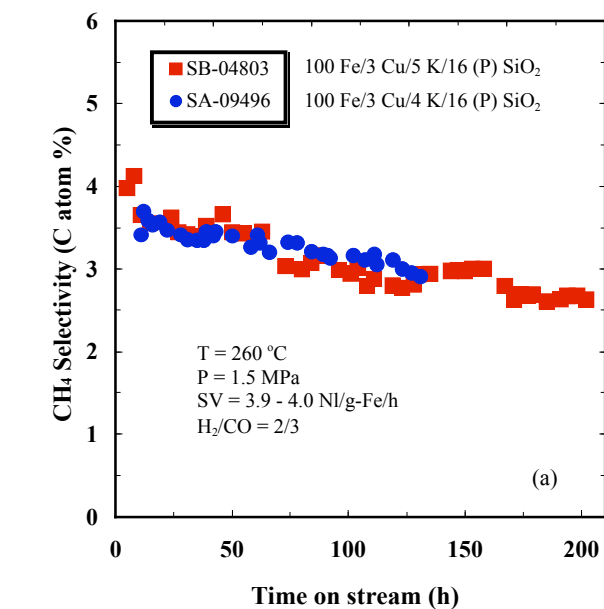


Figure 36. Comparison of hydrocarbon selectivities of two precipitated Fe catalysts in STSR tests at baseline process conditions.

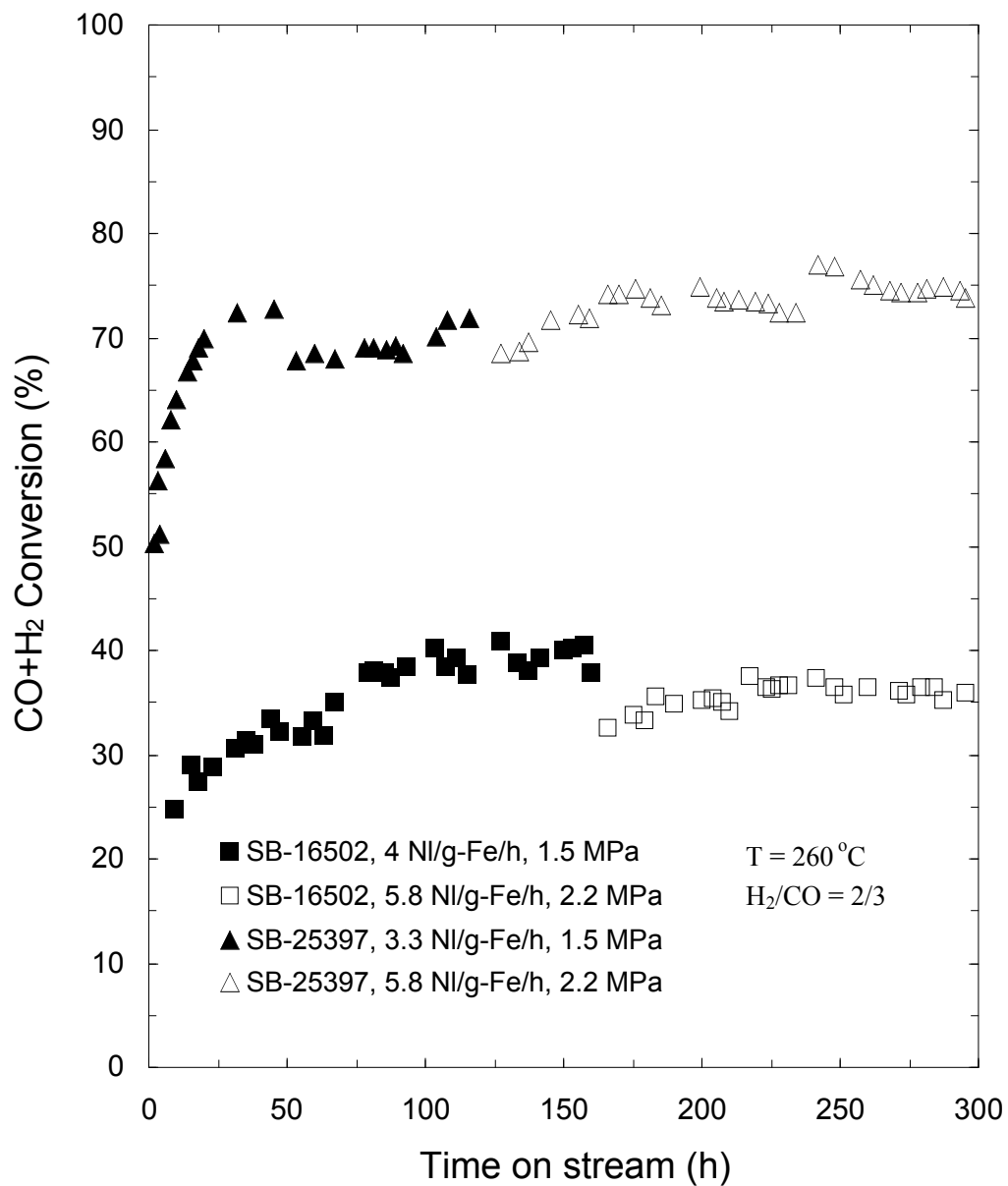


Figure 37. Change in syngas conversion with time and process conditions in STSR tests of precipitated (SB-25397) and spray-dried (SB-16502) catalysts.

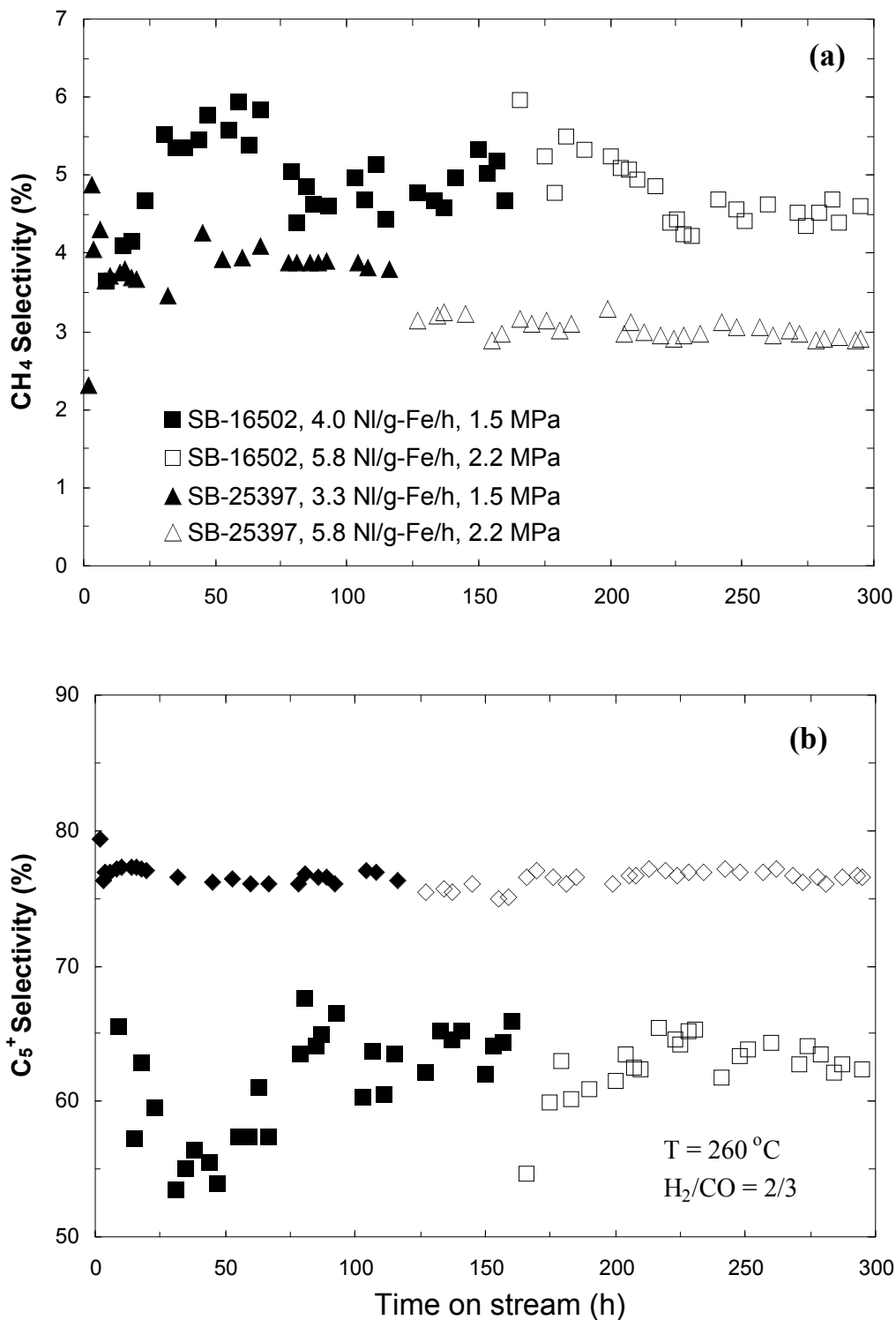


Figure 38. Change in CH₄ selectivity (a) and C₅⁺ selectivity (b) with time and process conditions in STSR tests of precipitated (SB-25397) and spray-dried (SB-16502) catalysts of the same composition (100 Fe/5 Cu/6 K/24 (P) SiO₂).

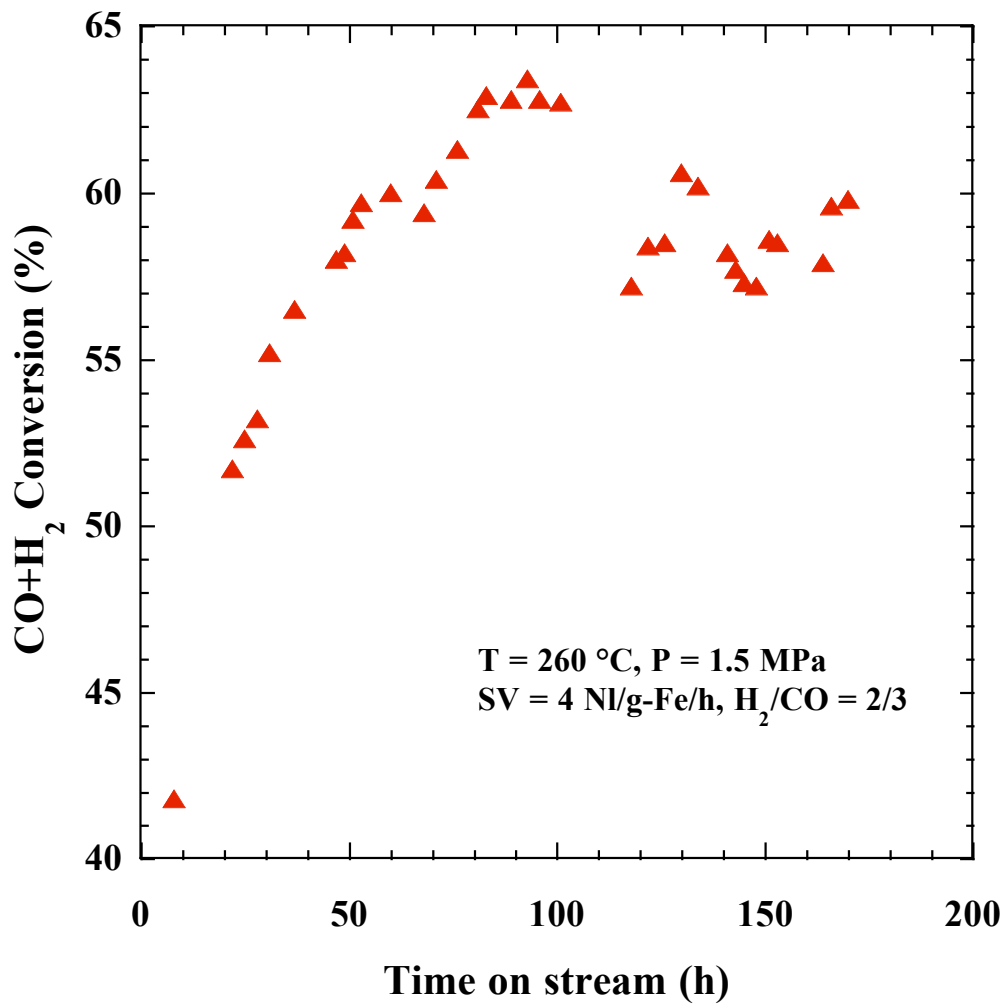


Figure 39. Change of syngas conversion with time of spray-dried DPS3616 catalyst during STSR test SB-28402.

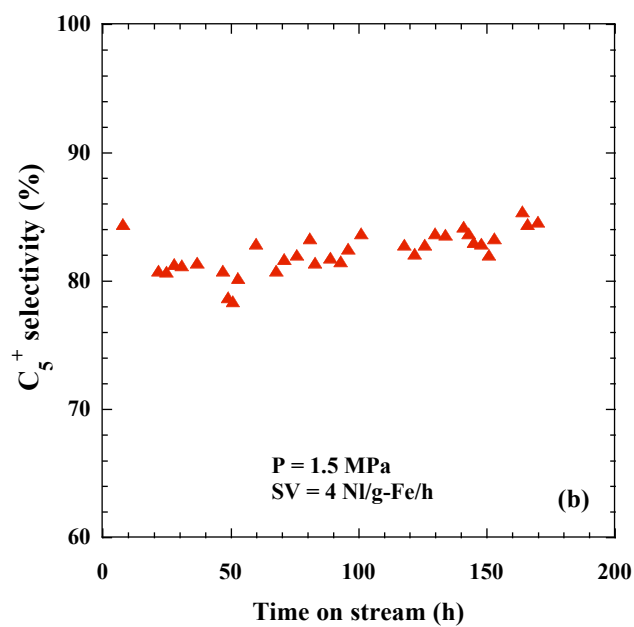
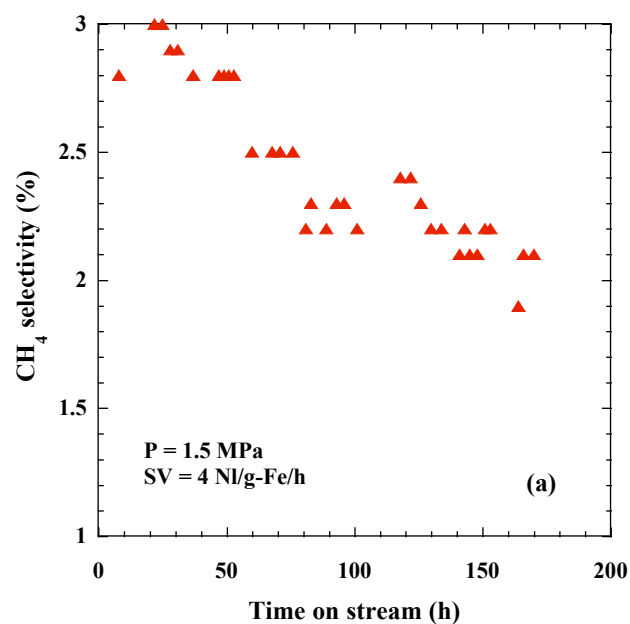


Figure 40. Methane selectivity (a) and C_5^+ selectivity (b) as a function of time in STSR test SB-24802 with spray-dried DPS3616 catalyst.

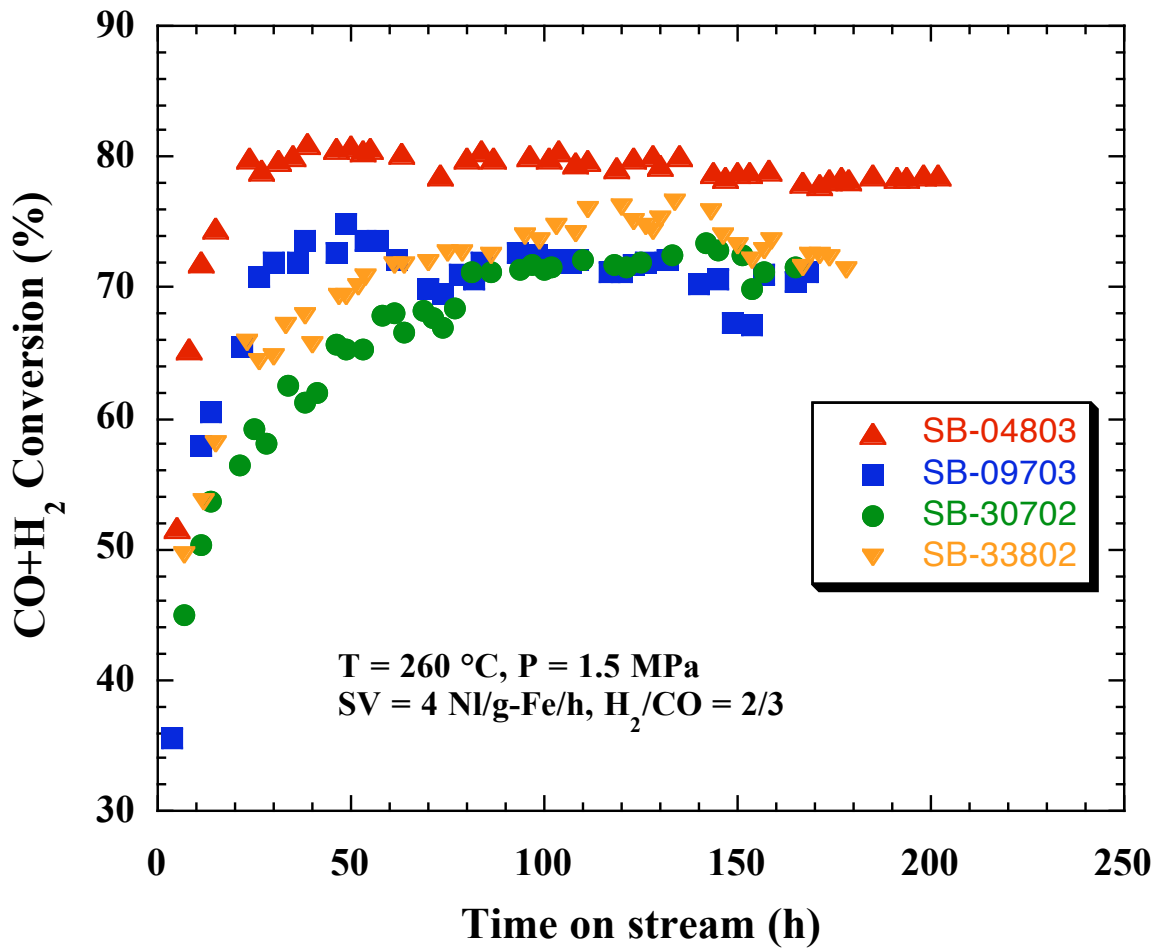


Figure 41. Changes in syngas conversion with time in STSR tests of spray-dried and precipitated Fe catalysts of the same nominal composition (100 Fe/3 Cu/5 K/16 SiO₂).

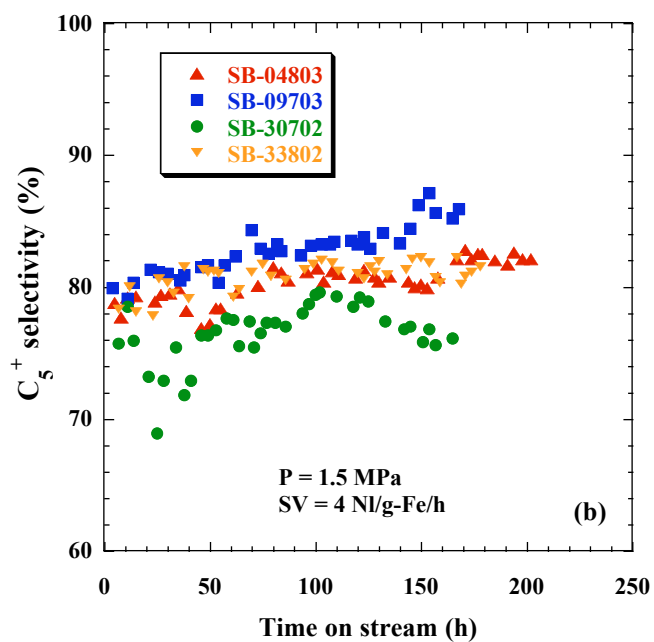
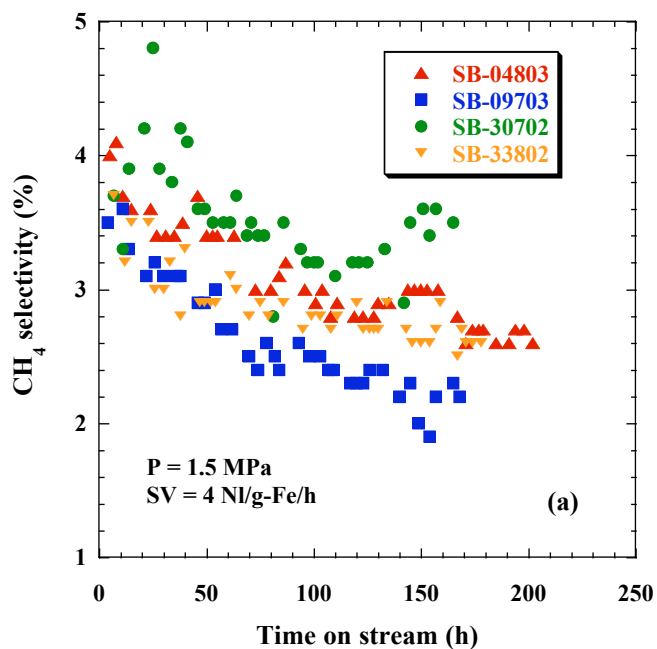


Figure 42. Changes in methane (a) and C₅⁺ selectivity (b) with time in STSR tests of spray-dried and precipitated Fe catalysts of the same nominal composition (100 Fe/3 Cu/5 K/16 SiO₂).

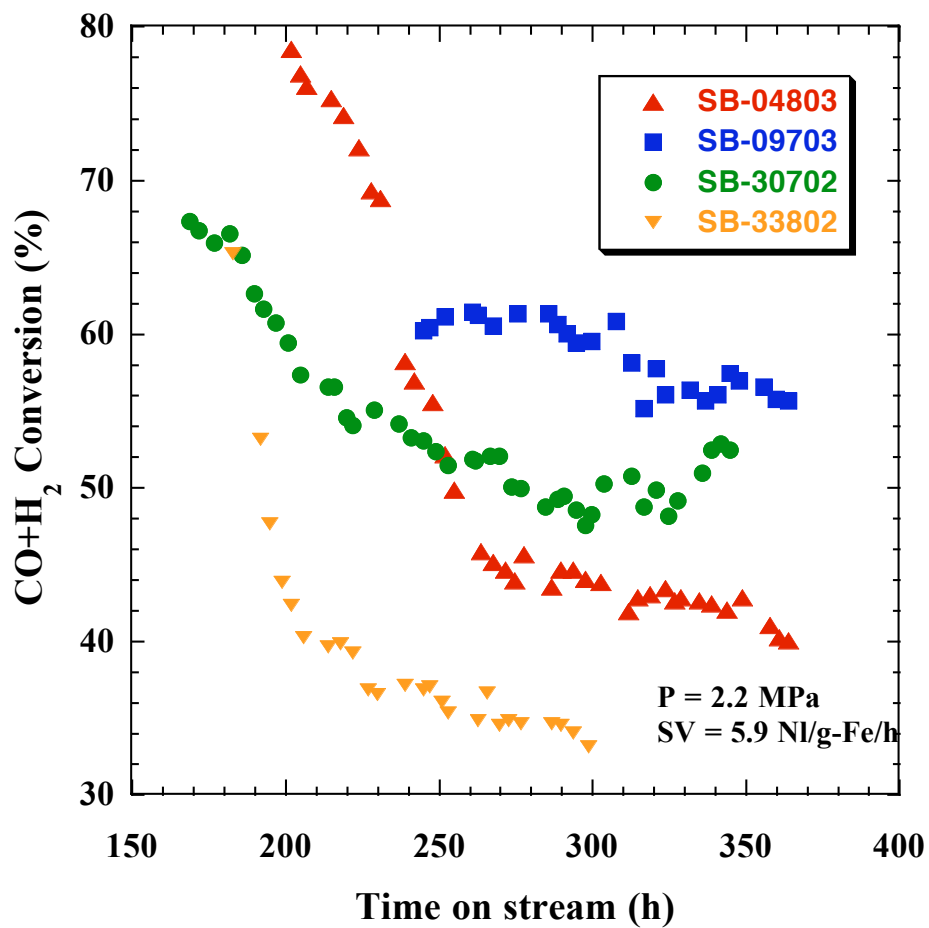


Figure 43. Changes in syngas conversion with time in STSR tests of spray-dried and precipitated Fe catalysts of the same nominal composition (100 Fe/3 Cu/5 K/16 SiO₂).

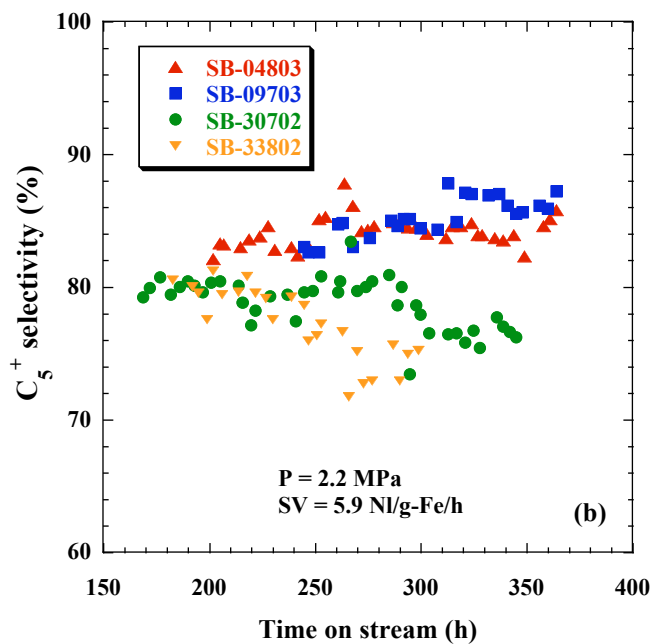
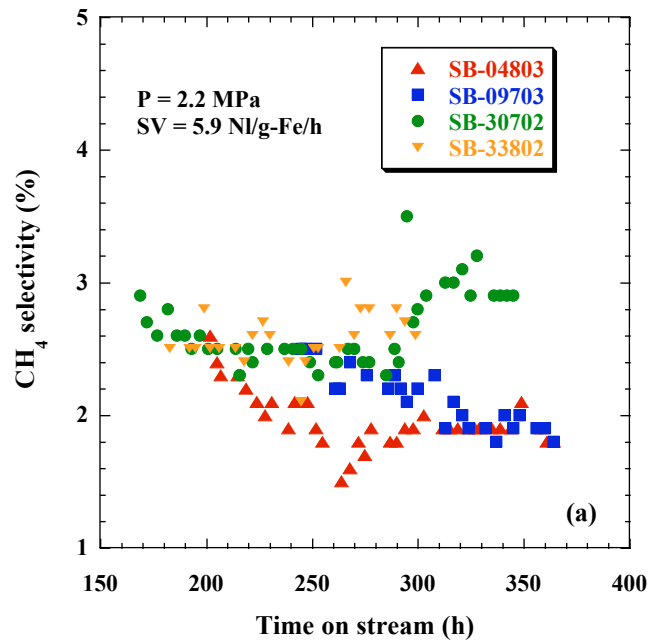


Figure 44. Changes in methane (a) and C₅⁺ selectivity (b) with time in STSR tests of spray-dried and precipitated Fe catalysts of the same nominal composition (100 Fe/3 Cu/5 K/16 SiO₂).