

Figure 1a. SEM image of spray-dried Fe₂O₃ (from Bayer). The resulting powder consists of small irregularly shaped agglomerates

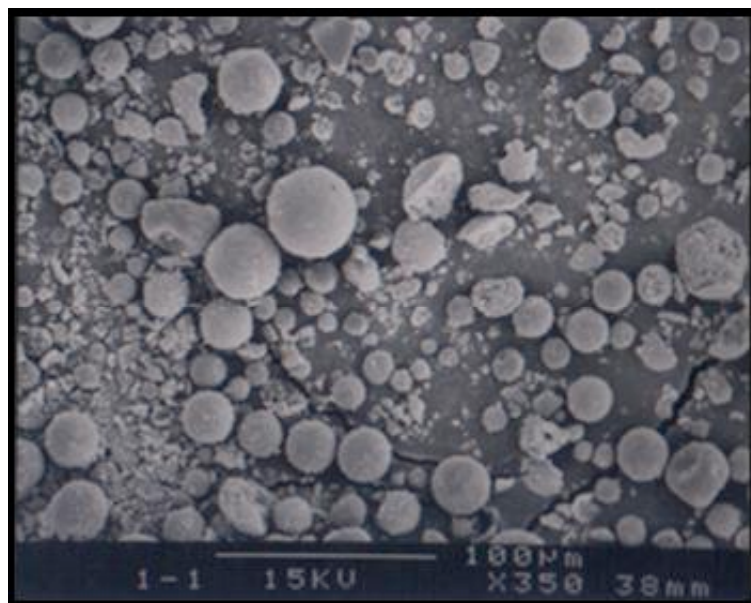


Figure 1b. SEM image of spray-dried Fe₂O₃ / silica binder. Addition of silica binder results in formation of largely spherical agglomerates with smooth external surface

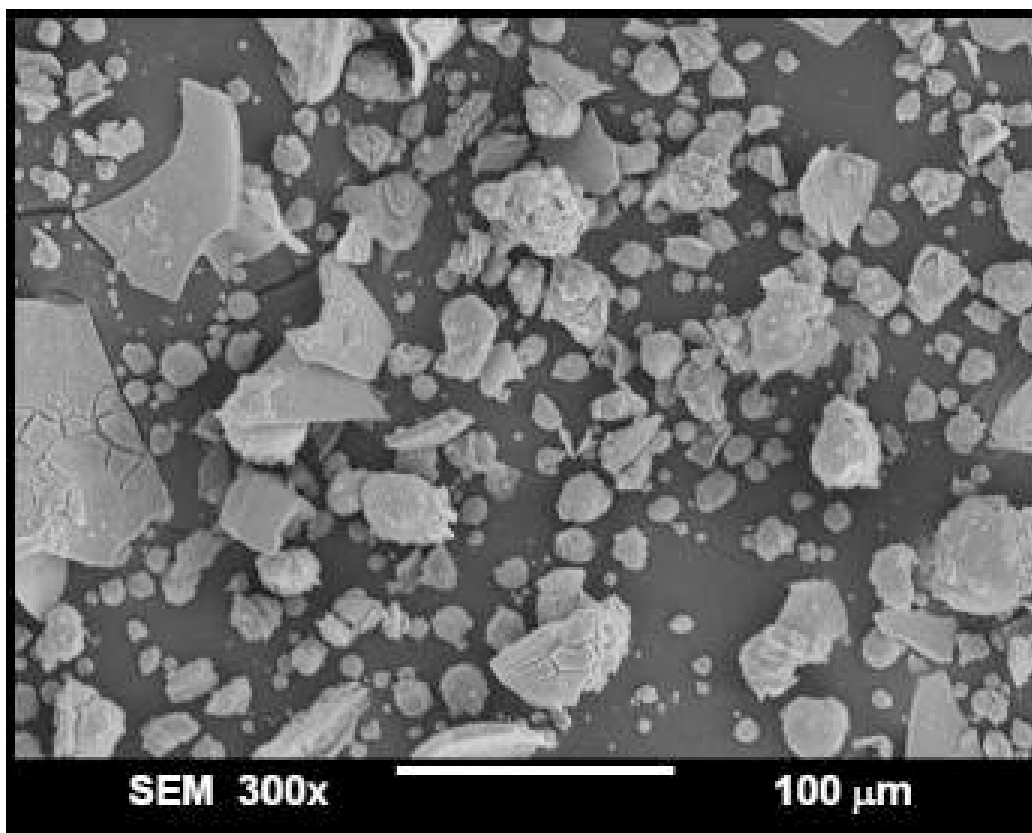


Figure 2. SEM image of spray-dried 100 Fe/5 Cu/4.2 K/11 (P) SiO₂ catalyst prepared at HU. Smaller particles (5-10 μm) are nearly spherical, whereas larger particles are of irregular shape, including some plate-like particles.

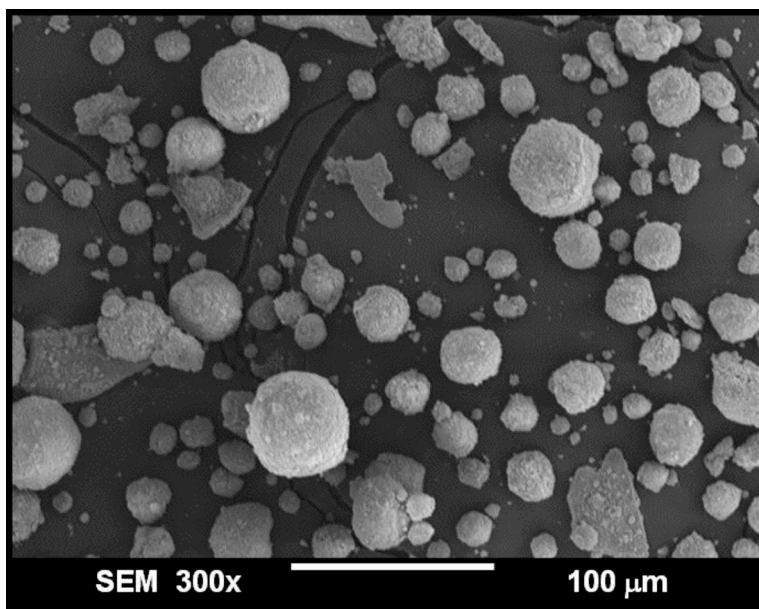


Figure 3a. SEM image of spray-dried 100 Fe/5 Cu/4.2 K/1.1 (B) SiO₂ catalyst prepared at HU.

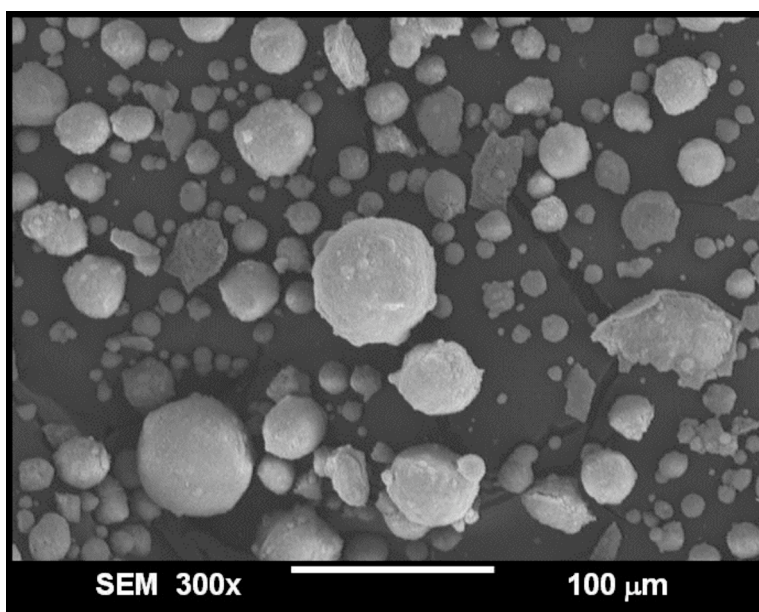


Figure 3b. SEM image of spray-dried 100 Fe/3 Cu/4 K/16 (P) SiO₂ catalyst prepared at HU. Majority of particles are nearly spherical, but external surfaces are relatively rough and smaller particles are attached to the surface.

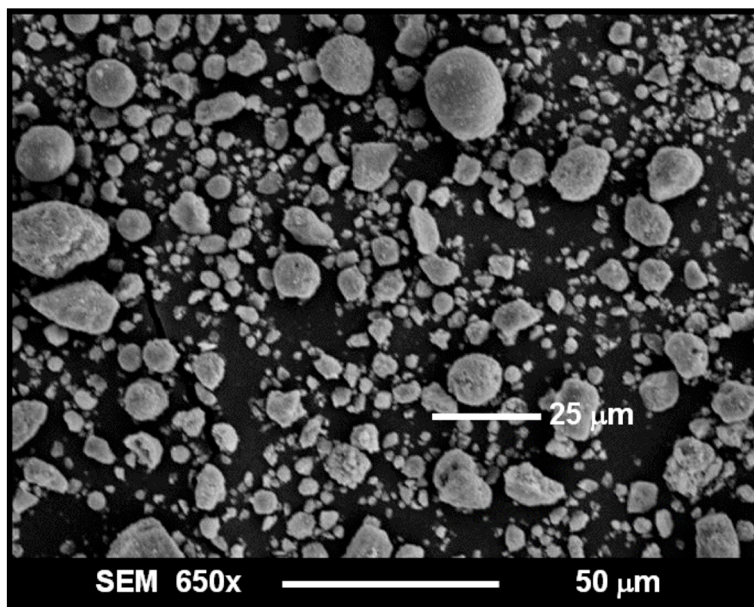


Figure 4a. SEM image of spray-dried TAMU catalyst (100 Fe/3 Cu/6 K/16 SiO₂ + 3wt % SiO₂ from Bindzil) prepared from vacuum dried precursor.

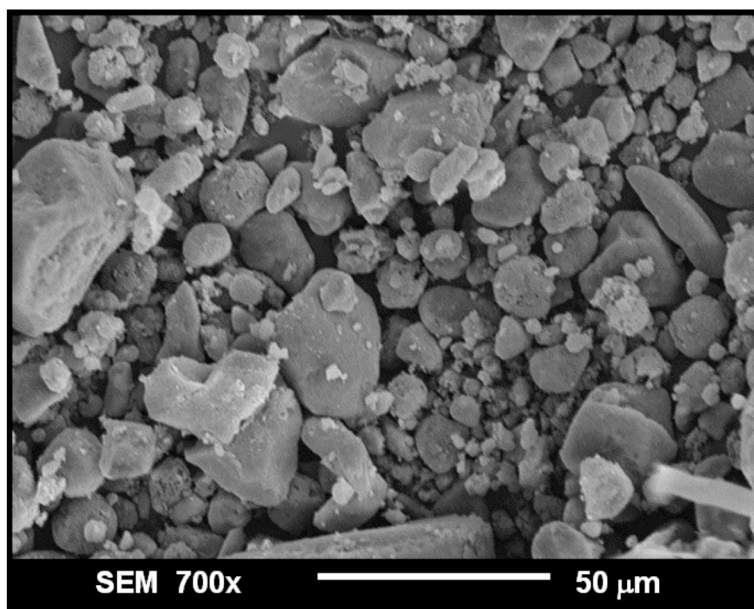


Figure 4b. SEM image of spray-dried TAMU catalyst (100 Fe/5 Cu/6 K/24 SiO₂) prepared from vacuum dried precursor.

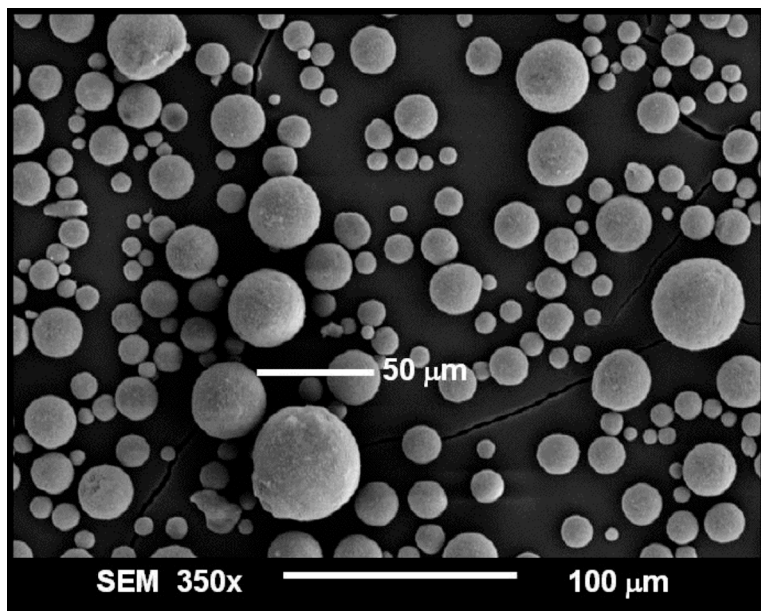


Figure 5a. SEM image of spray-dried TAMU catalyst (100 Fe/3 Cu/5 K/16 SiO₂ + 3wt % SiO₂ from Bindzil) prepared from wet precursor (No. 8 in Table 1).

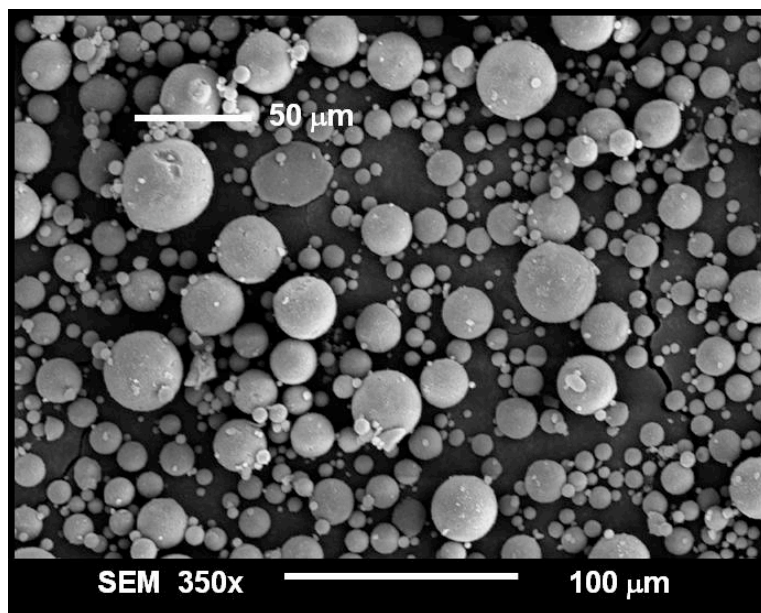


Figure 5b. SEM image of spray-dried TAMU catalyst No. 12 in Table 1 prepared from wet precursor using colloidal silica. The catalyst was impregnated with potassium after spray-drying, and particles have excellent sphericity and smooth external surfaces.