

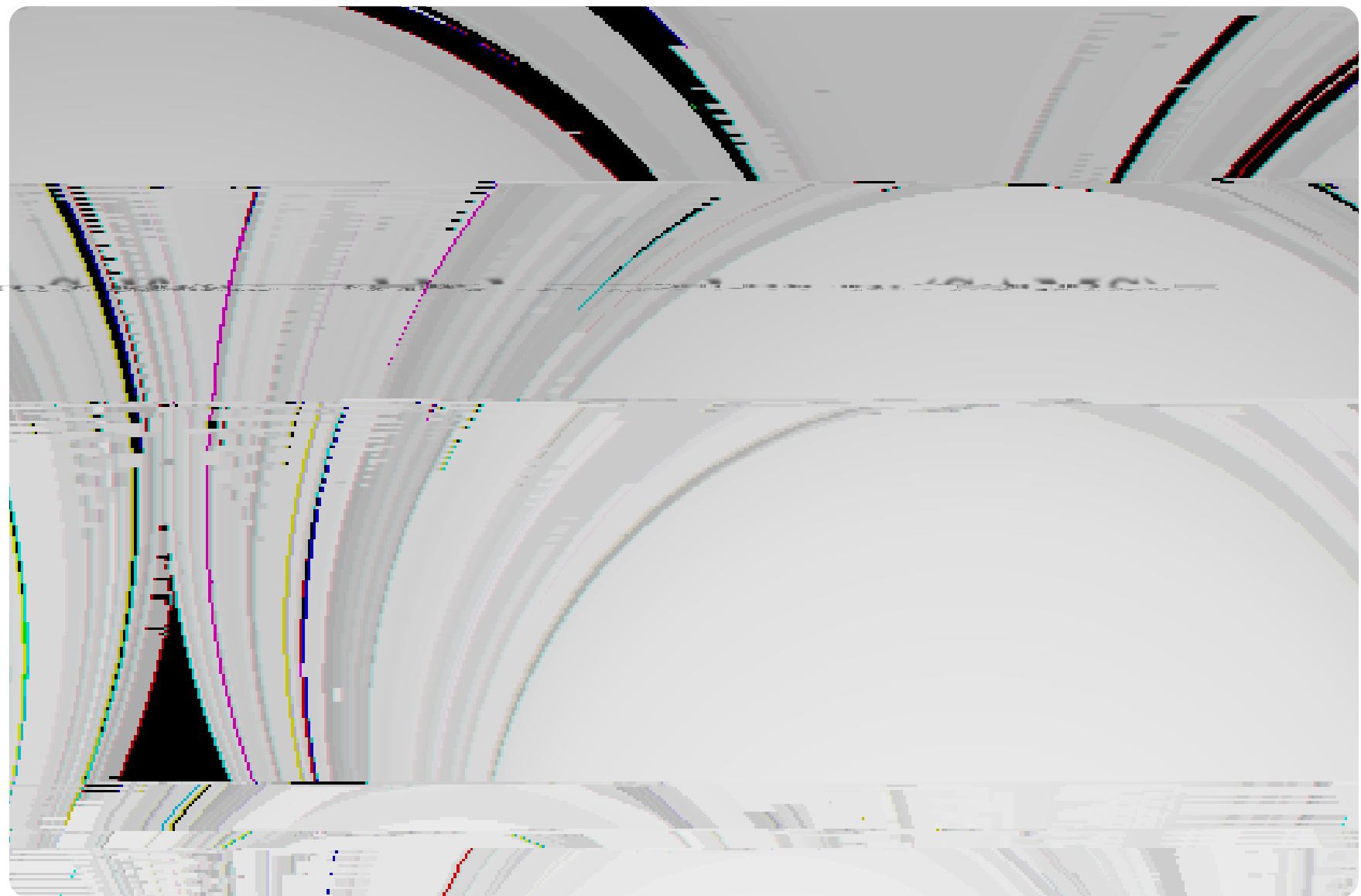


# Advanced powder synthesis

Microcrystalline titanium powders

*Nano powder synthesis*

Characterization XRD, FTIR, Uvvis, NMR,  
SEM, TEM, XPS



# Self assembled monolayers (SAMS)

# Multilayers for sensors

Regenerative multilayers on surfaces

Multilayers as sensors

Selective extractions

# Chemical solution routes for titanium from Ore

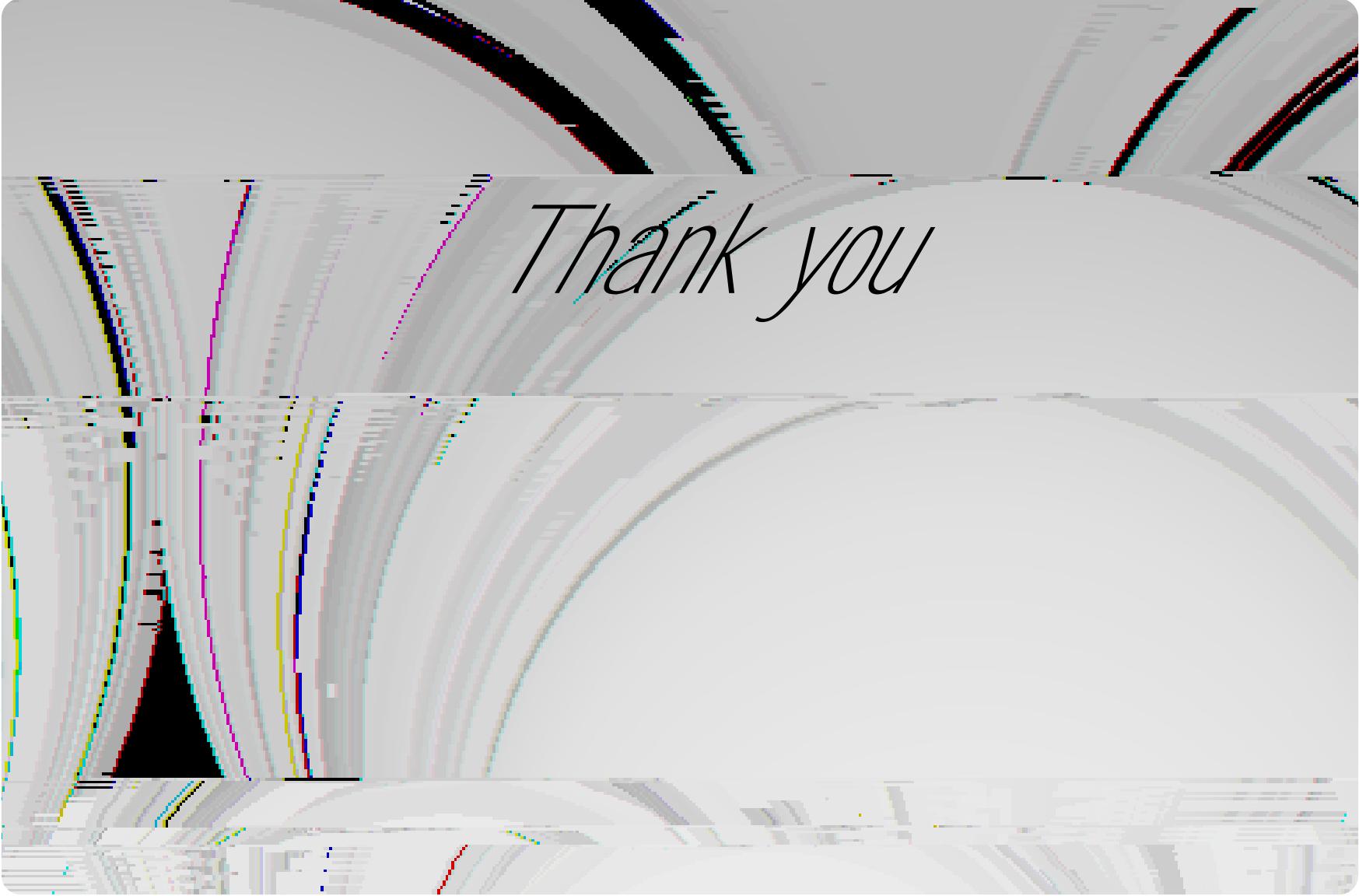
The figure displays a complex 3D surface plot. The vertical axis represents height, with a prominent peak reaching approximately 0.8. The horizontal axes represent two spatial dimensions. The surface features several distinct peaks and valleys, with colors ranging from dark blue (low values) to bright yellow and red (high values). A large, smooth, light-colored dome-shaped feature is visible on the right side of the plot. The overall shape is highly irregular, with many sharp peaks and deep troughs.

# Synthesis of new materials

Synthesis of organic and inorganic molecules  
Polymerization  
Application of new materials for effective powder  
metallurgy applications

# Leaching and pretreatment of ores

- Selective removal of impurities from ore
- Lower temperature requirement and ambient conditions
- Regeneration of reagent for reducing cost and environmental impacts



*Thank you*