

Safeguarding Amines from Oxidation by Enabling Technologies

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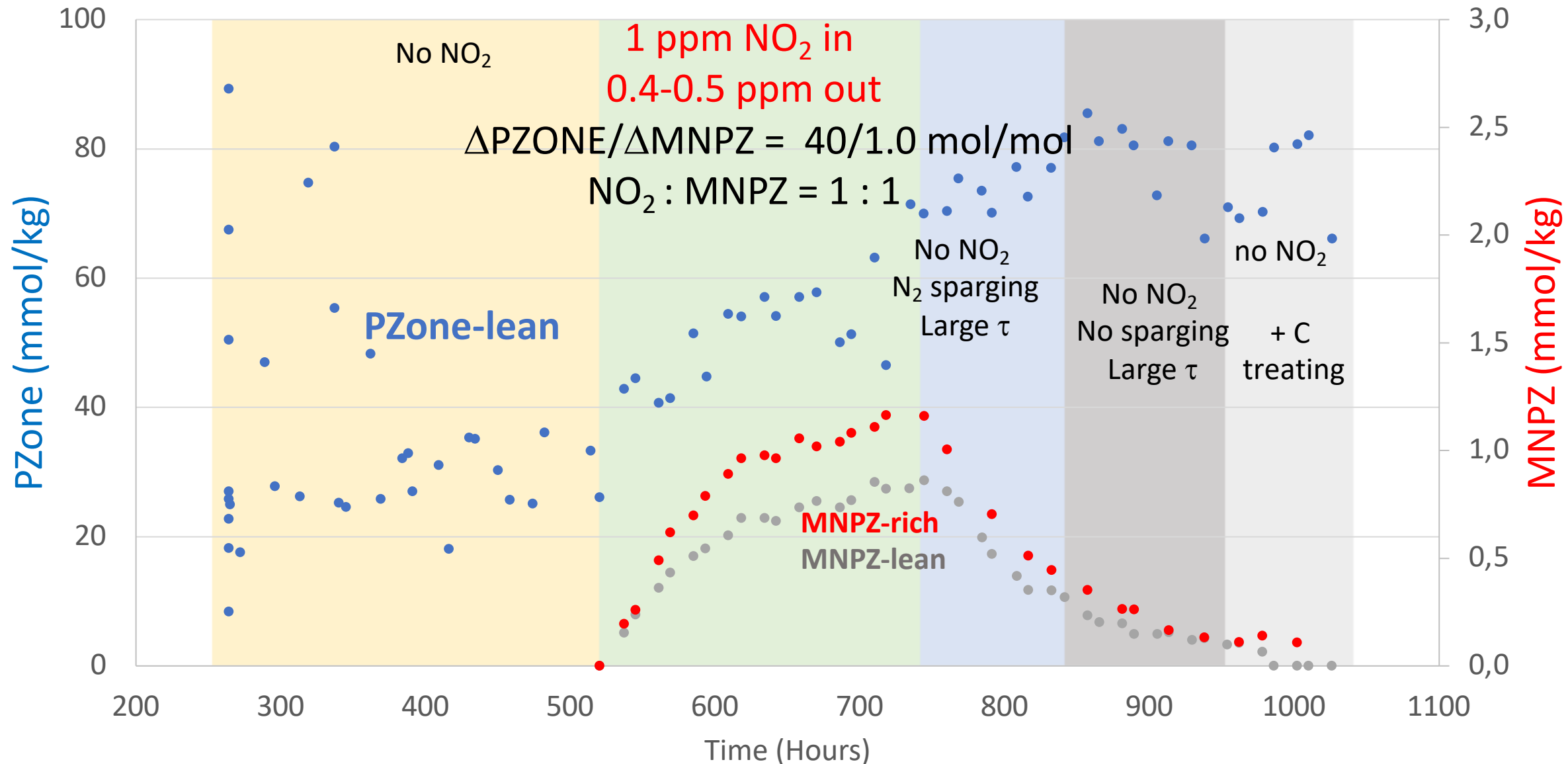
For

US – Norway Collaboration

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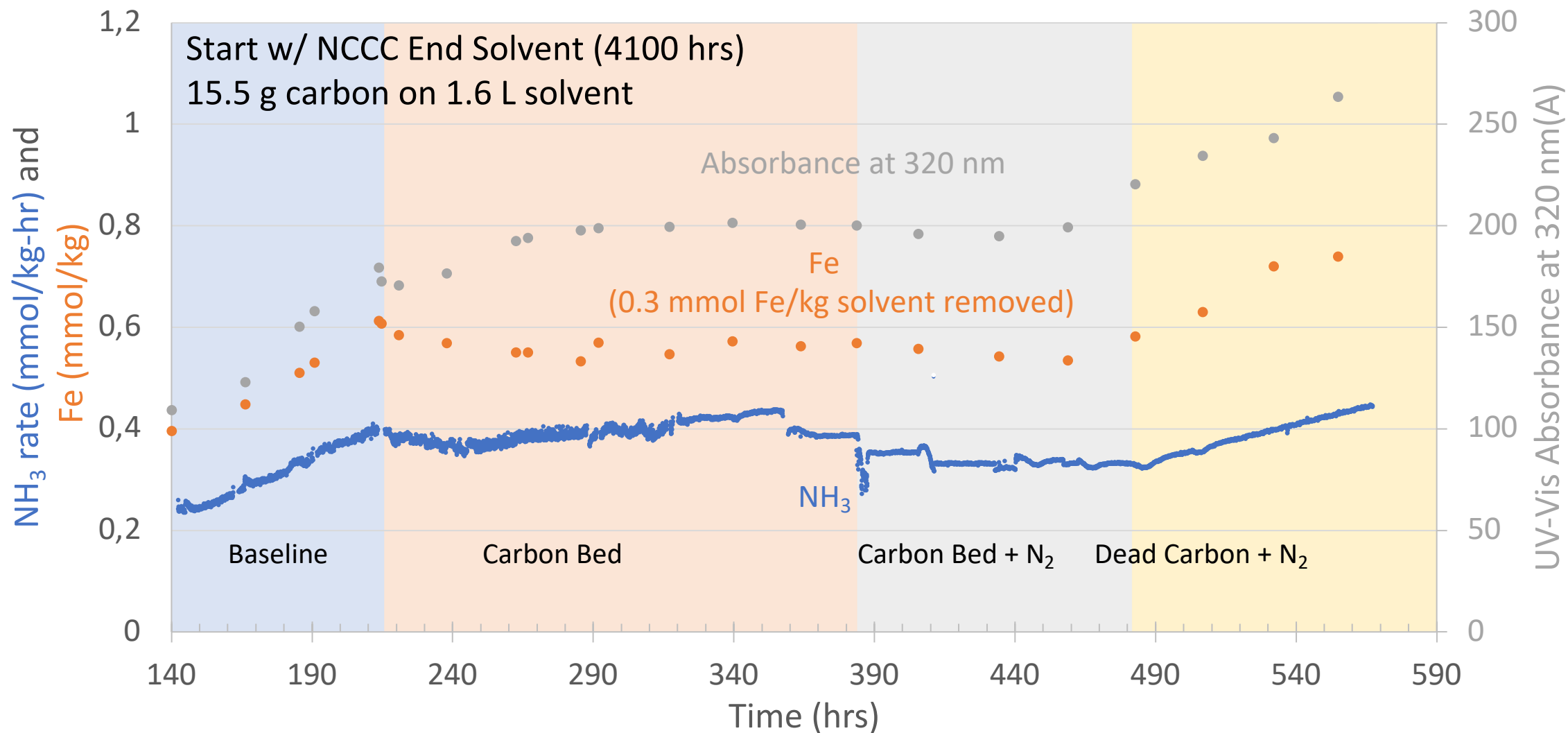
Oxidation testing in the SRP, PZAS pilot plant, Air + 4% CO₂

NO₂ Catalyzes Oxidation, resulting in 40 mol PZone/mol NO₂



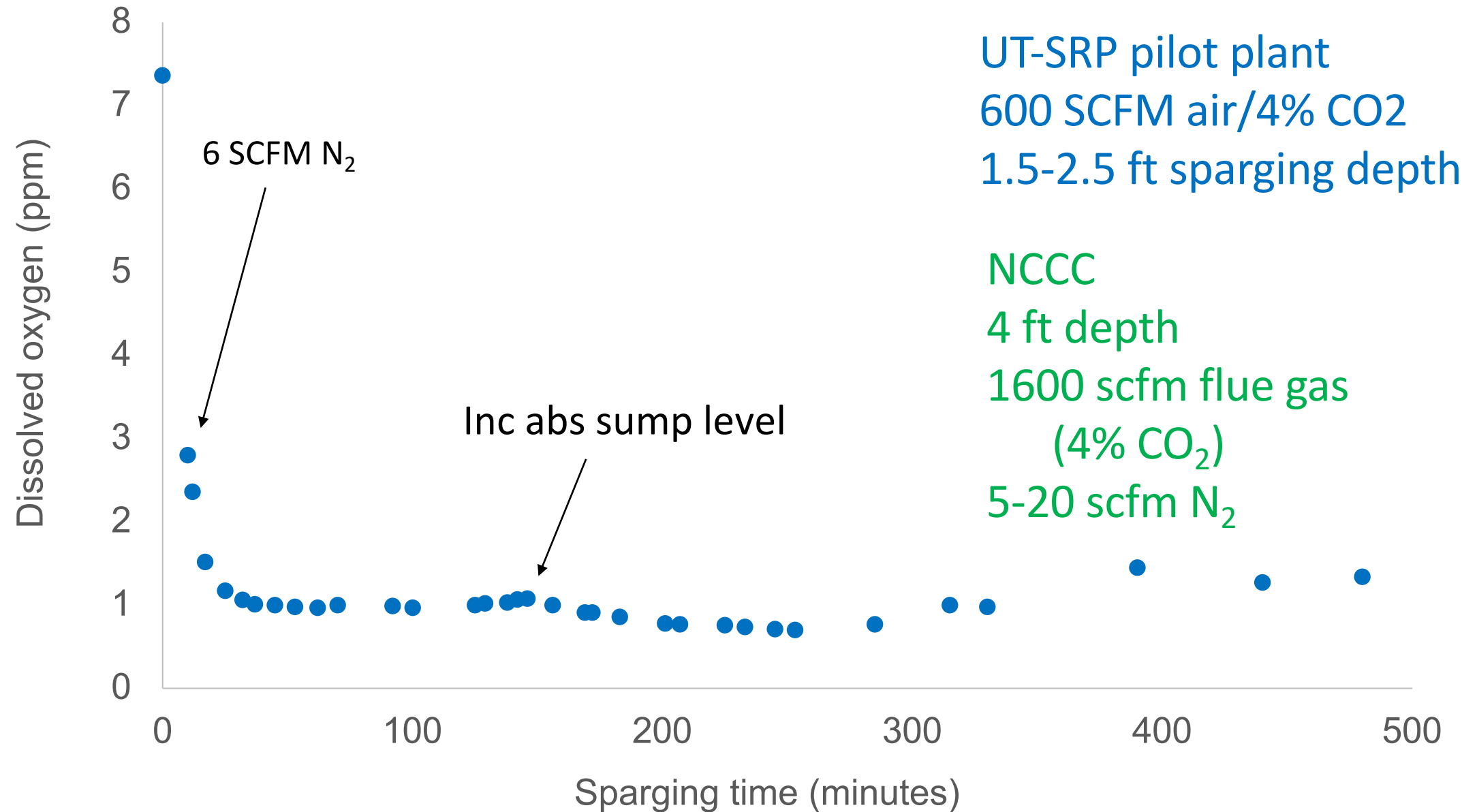


Effects of Carbon Treating and N₂ Sparging in HTOR





Dissolved oxygen stripping with N₂





NCCC pilot campaign for PZAS

- Currently scheduled for 6 months, Q4 2022 -> Q1 2023
- NGCC flue gas (4% CO₂, 8% H₂O) at ~110 °C from gas boiler
- Reduce NO₂ concentration to ≤0.2 ppm with thiosulfate/sulfite
- Test carbon bed at slipstream rates of 1 – 5 gpm v. L ~ 20 gpm
- Test N₂ sparging in absorber sump for dissolved O₂ removal
- Use acid wash for NH₃ control