

Exp1_ontology_test

Date: 2024-08-02
Status: Success
Created by: Manuel Vollbrecht

Title:

| | |
|---------------------|-------------------|
| Date of experiment: | 31.07.2024 |
| Experimenter: | Manuel Vollbrecht |
| Assistant: | Keno Krieger |
| Goal of Experiment: | Test ontology |

| Flame 1 (front) - precursors | | | | | | | | | | |
|------------------------------|---------|-------------------|----------------------------|------------------------------|---------------------|------------------------------|--------------------------------|----------------------------------------|------------------------|--------|
| Sample ID | Element | Precursor (Metal) | Precursor provider (metal) | Precursor LOT number (metal) | Precursor (solvent) | Precursor provider (solvent) | Precursor LOT number (solvent) | used volume of precursor solution [ml] | precursor molarity [M] | notes: |

| | | | | | | | | | | |
|------|----|-----------|------------------|-------|--------|-----|-------|-----|-----|--|
| exp1 | Fe | Ferrocene | Sigma Aldrich | XXXXX | xylene | VWR | YYYYY | 100 | 0.5 | |
|------|----|-----------|------------------|-------|--------|-----|-------|-----|-----|--|

| Flame 1 (front) - gas and dispersion parameters | | | | | | | | | | | | | |
|-------------------------------------------------|------------------------------|-----------------------|-----------------------|----------------------------------|-----------------|-----------------|----------------------------|-----------------------------------------|------------------------------------------------|-------------------|-------------------|------------------------------|--------|
| Sample ID | precursor feed rate [ml/min] | dispersion gas (type) | dispersion gas purity | dispersion gas flow rate [l/min] | fuel gas (type) | fuel gas purity | fuel gas flow rate [l/min] | O ₂ gas purity (pilot flame) | O ₂ flow rate [l/min] (pilot flame) | sheath gas (type) | sheath gas purity | sheath gas flow rate [l/min] | notes: |
| exp1 | 5 | oxygen | 5.0 | 5 | methane | 3.5 | 1.5 | 5.0 | 3.2 | | | | |

| Flame 1 (front) - reactor set-up | | | | | | |
|----------------------------------|---------------------------|-----------------------------|------------------|-------------------------------|----------------------------|--------|
| Sample ID | Nozzle type (e.g. Tethis) | nozzle-filter distance [cm] | nozzle angle [°] | pressure drop at nozzle [bar] | final pressure drop [mbar] | notes: |
| exp1 | Tethis | 60 | 0 | 1.5 | 100 | |

Flame 2 (back) - precursors

| Sample ID | Element | Precursor (Metal) | Precursor or provider (metal) | Precursor LOT number (metal) | Precursor (solvent) | Precursor provider (solvent) | Precursor LOT number (solvent) | mass of metal precursor [g] | total volume of precursor solution [ml] | precursor molarity [M] | notes: |
|-----------|---------|-------------------|-------------------------------|------------------------------|---------------------|------------------------------|--------------------------------|-----------------------------|-----------------------------------------|------------------------|--------|
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Flame 2 (back) - gas and dispersion parameters

| Sample ID | precursor feed rate [ml/min] | dispersion gas (type) | dispersion gas purity | dispersion gas flow rate [l/min] | fuel gas (type) | fuel gas purity | fuel gas flow rate [l/min] | O ₂ gas purity (pilot flame) | O ₂ flow rate [l/min] (pilot flame) | sheath gas (type) | sheath gas purity | sheath gas flow rate [l/min] | notes: |
|-----------|------------------------------|-----------------------|-----------------------|----------------------------------|-----------------|-----------------|----------------------------|-----------------------------------------|------------------------------------------------|-------------------|-------------------|------------------------------|--------|
| | | | | | | | | | | | | | |

Flame 2 (Back) - reactor set-up

| Sample ID | nozzle type (e.g. Tethis) | nozzle-filter distance [cm] | horizontal nozzle distance [cm] | nozzle angle [°] | pressure drop at nozzle [bar] | final pressure drop [mbar] | notes: |
|-----------|---------------------------|-----------------------------|---------------------------------|------------------|-------------------------------|----------------------------|--------|
| | | | | | | | |

| Results | | | | |
|-----------|------------------|--------------------|-------------------|----------------------------|
| Sample ID | empty filter [g] | covered filter [g] | sieving grid [µm] | Product after sieving [mg] |
| exp1 | 4.93 | 5.76 | 125 | 650 |

Notes/observations:



Unique eLabID: 20240802-5f219d114ff769db59cb143d7f193926f53646da
Link: <https://elabftw.iwt.zz/experiments.php?mode=view&id=2439>